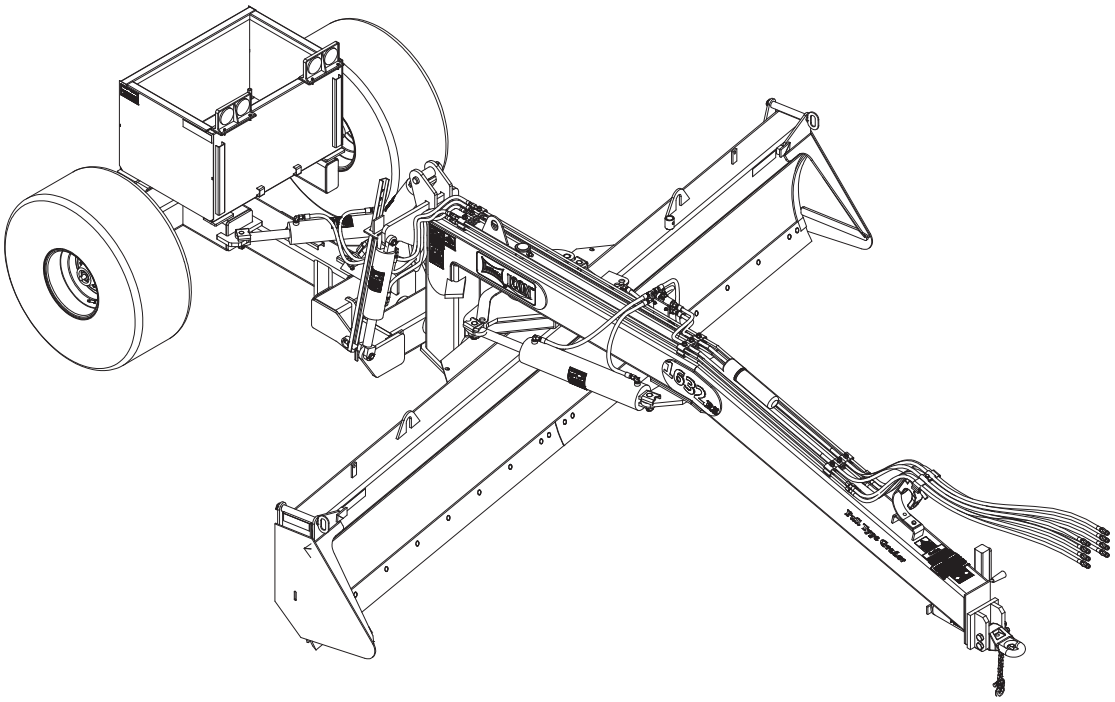
Model 1432/1632/1632RS Grader
Service and Parts
Manual



LANDOLL CORPORATION
1900 North Street
Marysville, Kansas 66508
(785) 562-5381
800-428-5655 ~ WWW.LANDOLL.COM

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Chapter 1

Introduction

The Landoll/Icon Model 1632RS Grader is a quality product designed to give years of trouble free performance. By following each section of this manual, your system will perform as designed for you and your operation

CHAPTER 1 gives basic instructions on the use of this manual.

CHAPTER 2 gives product specifications. These specifications supply lengths and measures for your equipment. A Standard Bolt Torque Table is provided to give guidelines for bolt torques to be used when servicing this product.

CHAPTER 3 contains assembly instructions for your Model 1632RS Grader. When these procedures are correctly followed, your equipment should provide you years of trouble-free operation and service.

CHAPTER 4 instructs how to operate your equipment before using it, and describes adjustments needed. It also gives practical advice for the care and maintenance of your Landoll equipment. Drawings in this section locate adjustment points on the equipment.

NOTE: IF THE EQUIPMENT IS IMPROPERLY ASSEMBLED OR MAINTAINED, THE WARRANTY IS VOID. IF YOU HAVE ANY QUESTIONS CONTACT:

LANDOLL CORPORATION
1900 NORTH STREET
MARYSVILLE, KANSAS 66508
or phone:
(785) 562-5381 or
(800) 428-5655
or FAX:
(888) 527-3909

CHAPTER 5 is a troubleshooting guide to aid in diagnosing and solving problems with the equipment.

PARTS LIST is a separate manual showing the various assemblies, subassemblies, and systems. Refer to that manual when ordering Landoll replacement parts. Order parts from your Landoll dealer.

WARRANTY The Warranty Registration form is included with the product documents. Fill it out and mail it within 15 days of purchase.

NOTE: IMPROPER ASSEMBLY, MODIFICATION, OR MAINTENANCE OF YOUR LANDOLL MACHINE CAN VOID YOUR WARRANTY.

COMMENTS Address comments or questions regarding this publication to:

LANDOLL CORPORATION
1900 NORTH STREET
MARYSVILLE, KANSAS 66508
ATTENTION: PUBLICATIONS -DEPT. 55

Understanding Safety Statements

You will find various types of safety information on the following pages and on the machine signs (decals) attached to the vehicle. This section explains their meaning.

The Safety Alert Symbol means ATTENTION! YOUR SAFETY IS INVOLVED!

DANGER

Danger means a life-threatening situation exists. Death can occur if safety measures or instructions on this label are not properly followed.

WARNING

Warning means serious injury or death can occur if safety measures or instructions on this label are not properly followed.

CAUTION

Caution means serious equipment or other property damage can occur if instructions on this label are not properly followed.

NOTE

Means that failure to follow these instructions could cause damage to the equipment or cause it to operate improperly.

NOTE

Make sure you read and understand the information contained in this manual and on the machine signs (decals) before you attempt to operate or maintain this vehicle.

The safety statements contained in this manual relate to the operation of the Model 1632RS Grader.

Chapter 2

Standard Specifications

1432/1632 GRADER			
MODEL	**BLADE WIDTH**	**TRANSPORT WIDTH**	**EST. WEIGHT (LBS.)**
1432	14’0”	8’-4”	5,100
1632	16’-0”	8’-4”	5,300
1632RS	16’-0”	8’-4”	5,660

TIRE INFLATION			
TIRE SIZE	**TIRE MANUFACTURER**	**PLY/LOAD RATING**	**INFLATION PRESSURE (PSI) (MAX.)**
19L x 16.1 12 ply	Firestone or equivalent	Farm Implement Tread 6600 lbs. @ 30 mph	36 psi
20.5 x 8.0-10		Load Range D/ 1,320 lb.	70 psi

SPECIFIC BOLT TORQUES	
Center Frame Spindle Nuts:	
Inner	50 Ft./Lbs.
Outer	300 Ft./Lbs.
Center Frame Wheel Nuts:	450 - 500 Ft./Lbs.
Wing Frame Wheel Nuts:	85 - 100 Ft./Lbs.
Disc Gang Shafts	1,200 Ft./Lbs.
9/16-18 Lug Bolts and Nuts (Heavy Duty Disc)	80 - 90 ft. lbs
5/8-18 Lug Bolts and Nuts (Heavy Duty Disc)	85 - 100 ft. lbs

Specifications

- **Model 1432**
- Standard 6” x 7’ cutting edges on 16’ x 32” blade.
- Standard folding box ends, to convert to box scraper.
- Four way operation to raise/lower, blade tilt side to side, and blade rotation. And rear steer.
- Pintle style hitch w/bolt on hammer strap. Rated at 68,800 lbs.
- Maximum tractor horsepower is 300 hp.
- Shipping Weight

  1432 - 5100 lbs.
- Overall length is 23’.
- Overall width with hydraulics attached is 9’-6”.
- Transport width with hydraulics unpinned, and in transport position is 8’-4”.
- Blade swing left/right is 50°, tilt side to side is 15°, blade clearance at full raised position is 18". And rear steer adds 5’ extension of blade on either side.
- Tires are 19 x 16.1, on 8 bolt rims and 8000 lb. spindles (35 psi max. inflation)
- Weight box should be filled prior to use. It holds app. 1/2 yd. of concrete (1500#)
- Hydraulic cushion valve for blade breakaway, upon solid impact. (set at 2500psi)
- Standard light package.
- Cylinders are welded industrial
  - 5 x 24 blade swing
  - 4 x 12 tilt
  - 4 x 16 raise/lower
  - 4 x 16 rear steer
- 9 total grease locations.
- Requires 4 remotes on the tractor (8 hoses).
- Standard angle gauge.
- 3000 psi hydraulic hoses.
-
-
- **Model 1632.1632RS**
- Standard 6” x 8’ cutting edges on 16’ x 32” blade.
- Standard folding box ends, to convert to box scraper.
- Four way operation to raise/lower, blade tilt side to side, and blade rotation. And rear steer.
- Pintle style hitch w/bolt on hammer strap. Rated at 68,800 lbs.
- Maximum tractor horsepower is 300 hp.
- Shipping Weight

  1632 - 5300 lbs.

  1632RS - 5,660 lbs.
- Overall length is 23’.
- Overall width with hydraulics attached is 9’-6”.
- Transport width with hydraulics unpinned, and in transport position is 8’-4”.
- Blade swing left/right is 50°, tilt side to side is 15°, blade clearance at full raised position is 18". And rear steer adds 5’ extension of blade on either side.
- Tires are 19 x 16.1, on 8 bolt rims and 8000 lb. spindles (35 psi max. inflation)
- Weight box should be filled prior to use. It holds app. 1/2 yd. of concrete (1500#)
- Hydraulic cushion valve for blade breakaway, upon solid impact. (set at 2500psi)
- Standard light package.
- Cylinders are welded industrial
  - 5 x 24 blade swing
  - 4 x 12 tilt
  - 4 x 16 raise/lower
  - 4 x 16 rear steer
- 9 total grease locations.
- Requires 4 remotes on the tractor (8 hoses).
- Standard angle gauge.
- 3000 psi hydraulic hoses.
-

LANDOLL CORPORATION
GENERAL TORQUE SPECIFICATIONS (REV. 4/97)

THIS CHART PROVIDES TIGHTENING TORQUES FOR GENERAL PURPOSE APPLICATIONS WHEN SPECIAL TORQUES ARE NOT SPECIFIED ON PROCESS OR DRAWING.

ASSEMBLY TORQUES APPLY TO PLATED NUTS AND CAPSCREWS ASSEMBLED WITHOUT SUPPLEMENTAL LUBRICATION (AS RECEIVED CONDITION). THEY DO NOT APPLY IF SPECIAL GRAPHITE MOLY-DISULFIDE OR OTHER EXTREME PRESSURE LUBRICANTS ARE USED.

WHEN FASTENERS ARE DRY (SOLVENT CLEANED), ADD 33% TO AS RECEIVED CONDITION TORQUE.

BOLT HEAD IDENTIFICATION MARKS INDICATE GRADE AND MAY VARY FROM MANUFACTURER TO MANUFACTURER.

THICK NUTS MUST BE USED ON GRADE 8 CAPSCREWS.

USE VALUE IN [ ] IF USING PREVAILING TORQUE NUTS.

TORQUE IS SPECIFIED IN FOOT POUNDS

UNC Size	SAE Grade 2		SAE Grade 5		SAE Grade 8		UNF Size	SAE Grade 2		SAE Grade 5		SAE Grade 8	
1/4-20	4	[5]	6	[7]	9	[11]	1/4-28	5	[6]	7	[9]	10	[12]
5/16-18	8	[10]	13	[16]	18	[22]	5/16-24	9	[11]	14	[17]	20	[25]
3/8-16	15	[19]	23	[29]	35	[43]	3/8-24	17	[21]	25	[31]	35	[44]
7/16-14	24	[30]	35	[43]	55	[62]	7/16-20	27	[34]	40	[50]	60	[75]
1/2-13	35	[43]	55	[62]	80	[100]	1/2-20	40	[50]	65	[81]	90	[112]
9/16-12	55	[62]	80	[100]	110	[137]	9/16-18	60	[75]	90	[112]	130	[162]
5/8-11	75	[94]	110	[137]	170	[212]	5/8-18	85	[106]	130	[162]	180	[225]
3/4-10	130	[162]	200	[250]	280	[350]	3/4-16	150	[188]	220	[275]	320	[400]
7/8-9	125	[156]	320	[400]	460	[575]	7/8-14	140	[175]	360	[450]	500	[625]
1-8	190	[237]	408	[506]	680	[850]	1-14	210	[263]	540	[675]	760	[950]
1-1/8-7	270	[337]	600	[750]	960	[1200]	1-1/8-12	300	[375]	660	[825]	1080	[1350]
1-1/4-7	380	[475]	840	[1050]	1426	[1782]	1-1/4-12	420	[525]	920	[1150]	1500	[1875]
1-3/8-6	490	[612]	110	[1375]	1780	[2225]	1-3/8-12	560	[700]	1260	[1575]	2010	[2512]
1-1/2-6	650	[812]	1460	[1825]	2360	[2950]	1-1/2-12	730	[912]	1640	[2050]	2660	[3325]
1-3/4-5	736	[920]	1651	[2063]	2678	[3347]	1-3/4-12	920	[1150]	2063	[2579]	3347	[4183]

METRIC

COARSE THREAD METRIC CLASS 10.9 FASTENERS AND CLASS 10.0 NUTS AND THROUGH HARDENED FLAT WASHERS, PHOSPHATE COATED, ROCKWELL "C" 38-45.

USE VALUE IN [ ] IF USING PREVAILING TORQUE NUTS.

Nominal Thread Diameter mm	Standard Torque				Nominal Thread Diameter mm	Standard Torque			
	Newton-Meters		Foot-Pounds			Newton-Meters		Foot-Pounds	
6	10	[14]	7	[10]	20	385	[450]	290	[335]
7	16	[22]	12	[16]	24	670	[775]	500	[625]
8	23	[32]	17	[24]	27	980	[1105]	730	[825]
10	46	[60]	34	[47]	30	1330	[1470]	990	[1090]
12	80	[101]	60	[75]	33	1790	[1950]	1340	[1450]
14	125	[155]	90	[115]	36	2325	[2515]	1730	[1870]
16	200	[240]	150	[180]	39	3010	[3210]	2240	[2380]
18	275	[330]	205	[245]					

Table 2-1: General Torque Specifications

LANDOLL CORPORATION
HYDRAULIC FITTING TORQUE SPECIFICATIONS
37° JIC, ORS, & ORB (REV. 10/97)

THIS CHART PROVIDES TIGHTENING TORQUES FOR HYDRAULIC FITTING APPLICATIONS WHEN SPECIAL TORQUES ARE NOT SPECIFIED ON PROCESS OR DRAWING.

ASSEMBLY TORQUES APPLY TO PLATED CARBON STEEL AND STAINLESS STEEL FITTINGS ASSEMBLED WITHOUT SUPPLEMENTAL LUBRICATION (AS RECEIVED CONDITION). THEY DO NOT APPLY IF SPECIAL GRAPHITE MOLY-DISULFIDE OR OTHER EXTREME PRESSURE LUBRICANTS ARE USED.

BRASS FITTINGS AND ADAPTERS - 65% OF THE TORQUE VALUE FOR STEEL. STAINLESS STEEL, ALUMINUM AND MONEL - THREADS ARE TO BE LUBRICATED.

TORQUE IS SPECIFIED IN FOOT POUNDS

PARKER BRAND FITTINGS

Dash Size	37 Degree JIC	O-Ring (ORS)	O-Ring Boss (ORB)
-4	11-13	15-17	13-15
-5	14-16	—	21-23
-6	20-22	34-36	25-29
-8	43-47	58-62	40-44
-10	55-65	100-110	57.5-62.5
-12	80-90	134-146	75-85
-16	115-125	202-218	109-121
-20	160-180	248-272	213-237
-24	185-215	303-327	238-262
-32	250-290	—	310-340

GATES BRAND FITTINGS

Dash Size	37 Degree JIC	O-Ring (ORS)	O-Ring Boss (ORB)
-4	10-11	10-12	14-16
-5	13-15	—	—
-6	17-19	18-20	24-26
-8	34-38	32-40	37-44
-10	50-56	46-56	50-60
-12	70-78	65-80	75-83
-14	—	65-80	—
-16	94-104	92-105	111-125
-20	124-138	125-140	133-152
-24	156-173	150-180	156-184
-32	219-243	—	—

AEROQUIP BRAND FITTINGS

Dash Size	37 Degree JIC	O-Ring (ORS)	O-Ring Boss (ORB)
-4	11-12	10-12	14-16
-5	15-16	—	18-20
-6	18-20	18-20	24-26
-8	38-42	32-35	50-60
-10	57-62	46-50	72-80
-12	79-87	65-70	125-135
-14	—	—	160-180
-16	108-113	92-100	200-220
-20	127-133	125-140	210-280
-24	158-167	150-165	270-360
-32	245-258	—	—

Table 2-2: Hydraulic Fitting Torque Specifications

Chapter 3

Safety Information

Introduction

This manual is compiled as a guide for owners and operators of the Pull Type Grader. Read it carefully so as to be able to follow the suggestions made. Please take time to understand the proper maintenance schedule and SAFE operation of your equipment.

In the event that a new and inexperienced operator is placed in charge of running the equipment, they should read and understand, that part of the manual for proper maintenance and SAFE operation, and to be trained in regard by an experienced operator.

Owner Assistance

If customer service or repairs are needed, contact your Icon dealer. They have trained personnel, parts and service equipment specially designed for Icon products. Your machine's parts should only be replaced with Icon parts. Have the Serial Number and complete Model Number available when ordering parts from your Icon dealer **(See Figure 3-1.)**

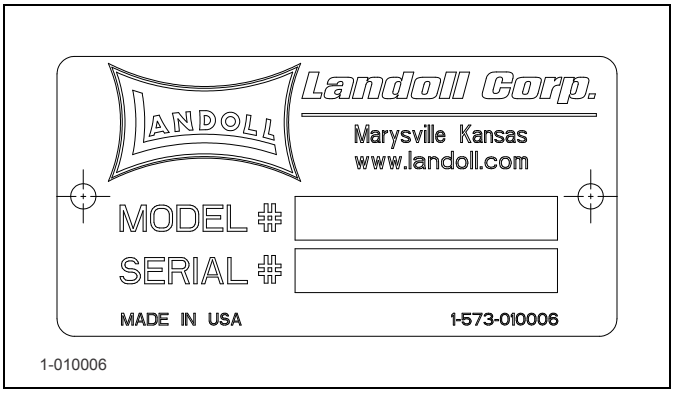


Figure 3-1: ID Plate

Warranty Registration

Be certain to register the grader, by online registration at *www.landoll.com* within 10 days of purchase or lease, in order to be on file at Landoll and eligible for Warranty.

Take time to read and understand the Warranty for this product. That Warranty is printed in the Owner's Manual **(See Figure 3-2),** and a separate copy enclosed in the packet.

ICON/Landoll reserves the right to make changes and/or add improvements to it's products at any time without obligation to previously manufactured equipment.

ICON/Landoll recommends a maximum horsepower of the pulling tractor for your grader to be 300 hp. Additional power may shorten the life of your grader and will alter the Warranty.

Please take time to complete the following information for your personal reference, should you need to contact your Dealer with questions or parts needs.

MODEL_____

SERIAL #_____

DATE OF PURCHASE_____

DEALER NAME_____

We at ICON/Landoll wish to thank you for purchasing our product. We have spent considerable time and effort to research, design, test and develop this machine and are confident it will serve you in the use for which it was designed.

LANDOLL CORPORATION
Product Warranty

LANDOLL CORPORATION 1600 W. 8th St. Beloit KS 67420
(referred to as LANDOLL in this document)

LANDOLL *shall Warrant workmanship and materials on the* **ICON Farm Products** *for a period of 12 months from the date of original purchase, lease, or rental, from the original Dealer, and in accordance with the following terms and conditions.*

Should any part or component fail within the Warranty period, and under normal use conditions, LANDOLL shall supply a new part or component for replacement through the original Dealer. Cost of normal ground freight, for that part or component to the Dealer, shall be paid by LANDOLL. Repair and replacement labor cost, from the original Dealer, shall be paid by LANDOLL at a rate negotiated by LANDOLL.

No further expense shall be paid by LANDOLL, *including but not limited to, loss of time or income.*

LANDOLL *shall not provide Warranty on any part or component that has failed due to abuse, misuse, alteration, improper maintenance, or normal wear. Failure occurring while being pulled by a tractor in excess of engine horsepower, as described in the owners manual and/or posted on the machine, is considered abuse and misuse and shall not receive Warranty. Warranty applies only to normal. intermittent agricultural use, and not commercial or industrial use.*

In regard to some components manufactured by other companies and sold by LANDOLL, *including but not limited to tires, said Warranty shall be provided solely by that manufacturing company.*

This Warranty applies to products sold in the United States and Canada, and is made expressly in place of all other warranties, expressed or implied.

Figure 3-2: Product Warranty

Understanding Safety Statements

You will find various types of safety information on the following pages and on the machine decals (signs) attached to the implement. This section explains their meaning.

NOTICE

Special notice - read and thoroughly understand.

CAUTION

Proceed with caution. Failure to heed caution may cause injury to person or damage product.

WARNING

Proceed with caution. Failure to heed warning will cause injury to person or damage product.

DANGER

Proceed with extreme caution. Failure to heed notice will cause injury or death to person and/or damage product.

NOTE

You should read and understand the information contained in this manual and on the machine decals before you attempt to operate or maintain this equipment.

- Examine safety decals and be sure you have the correct safety decals for the machine. See Safety Sign and Locations in Safety Section for decal locations **See Figures 3-3 through 3-5** Order replacement decals through your Icon dealer.
- Keep these signs clean so they can be observed readily. It is important to keep these decals cleaned more frequently than the machine. Wash with soap and water or a cleaning solution as required.
- Replace decals that become damaged or lost. Also, be sure that any new machine components installed during repair include decals which are assigned to them by the manufacturer.
- When applying decals to the machine, be sure to clean the surface to remove any dirt or residue. Where possible, sign placement should protect the sign from abrasion, damage, or obstruction from mud, dirt, oil etc.

DANGER

- **Keep Riders Off of Machinery**
- **Do not allow anyone to ride on tractor or machine. Riders could be struck by foreign objects or thrown from the machine.**
- **Never allow children to operate equipment.**
- **Keep bystanders away from machine during operation.**

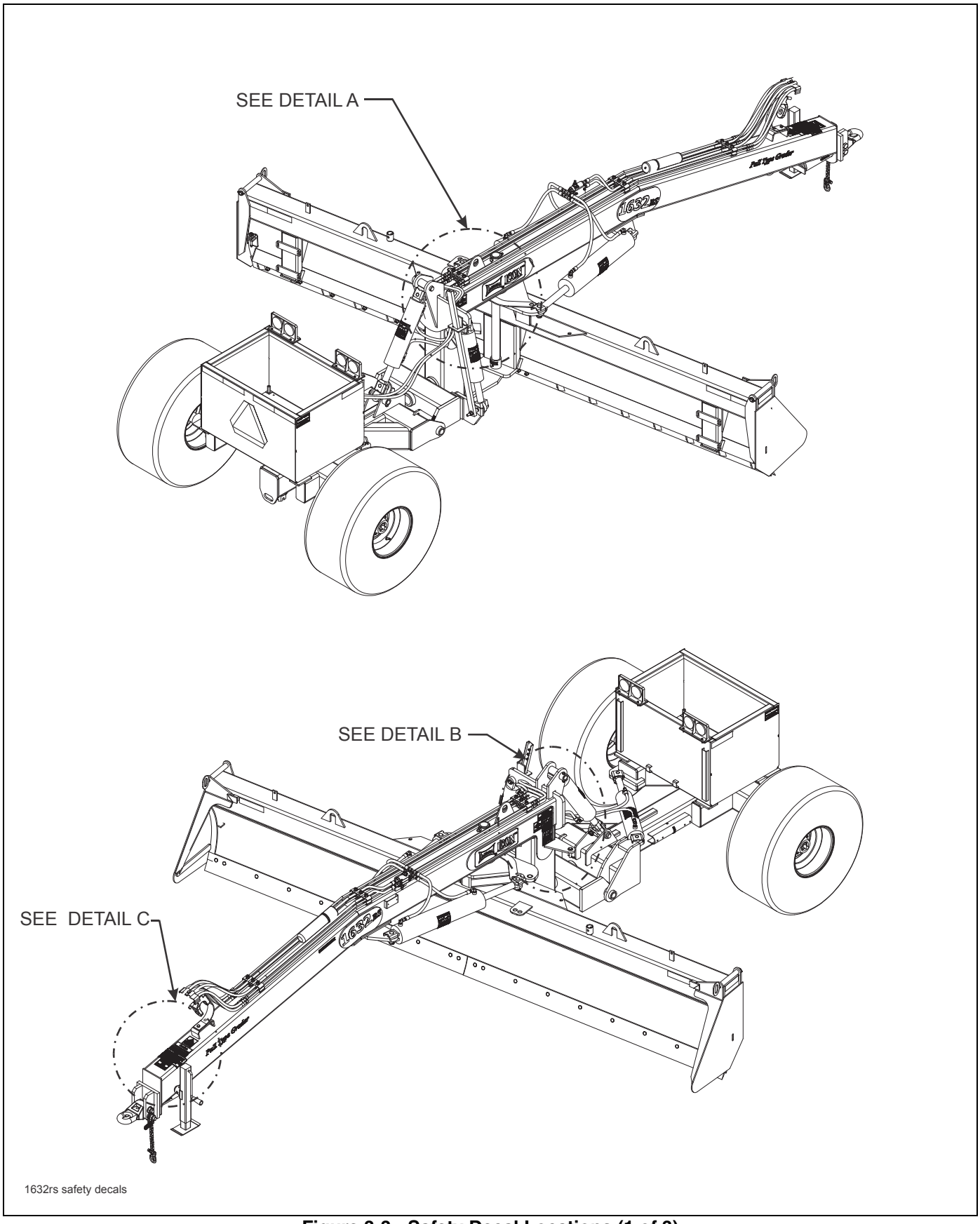
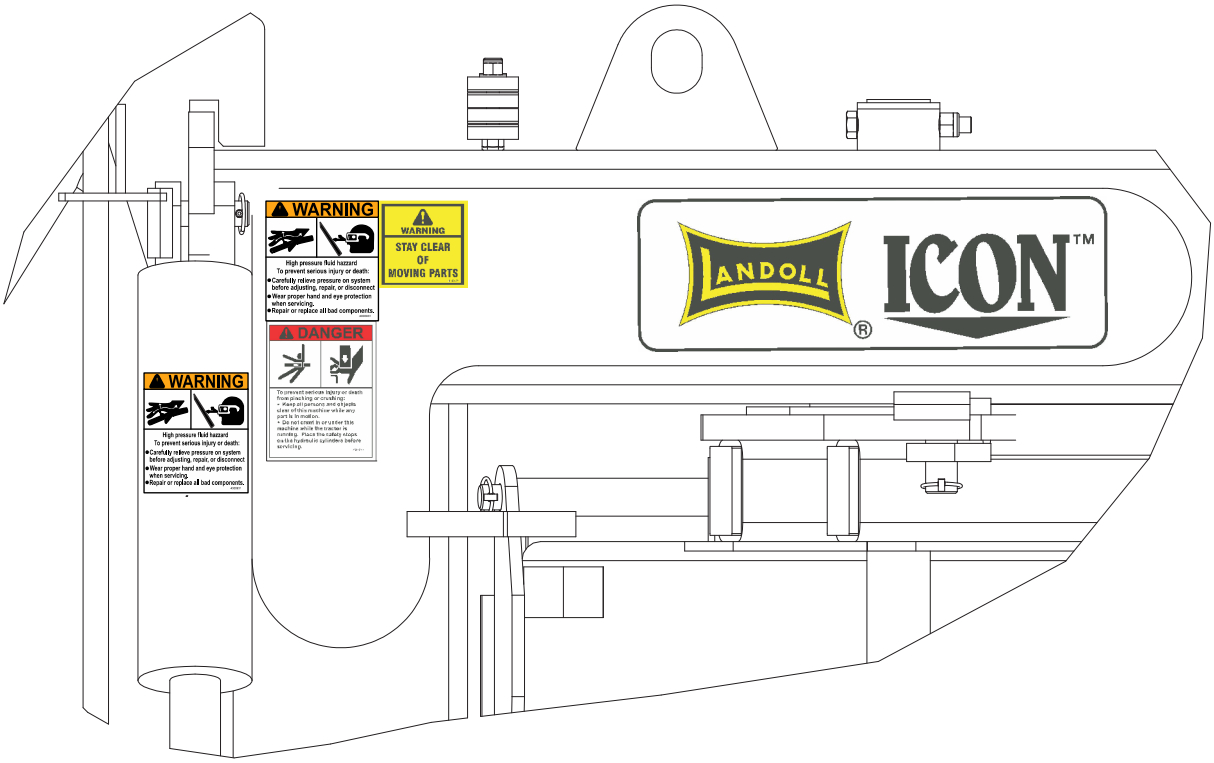
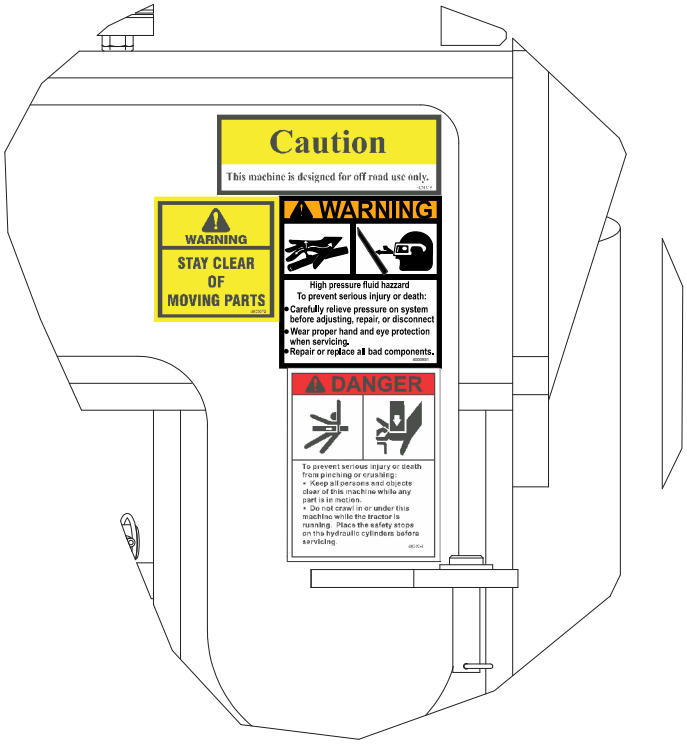


Figure 3-3: Safety Decal Locations (1 of 3)


WARNING
High pressure fluid hazzard
To prevent serious injury or death:
Carefully relieve pressure on system before adjusting, repair, or disconnect
Wear proper hand and eye protection when servicing.
Repair or replace all bad components.
WARNING
STAY CLEAR OF MOVING PARTS
DANGER
To prevent serious injury or death from pinching or crushing:
Keep all persons and objects clear of this machine while any part is in motion.
Do not crawl in or under this machine while the tractor is running. Place the safety stops on the hydraulic cylinders before servicing.
WARNING
High pressure fluid hazzard
To prevent serious injury or death:
Carefully relieve pressure on system before adjusting, repair, or disconnect
Wear proper hand and eye protection when servicing.
Repair or replace all bad components.
LANDOLL
ICON™

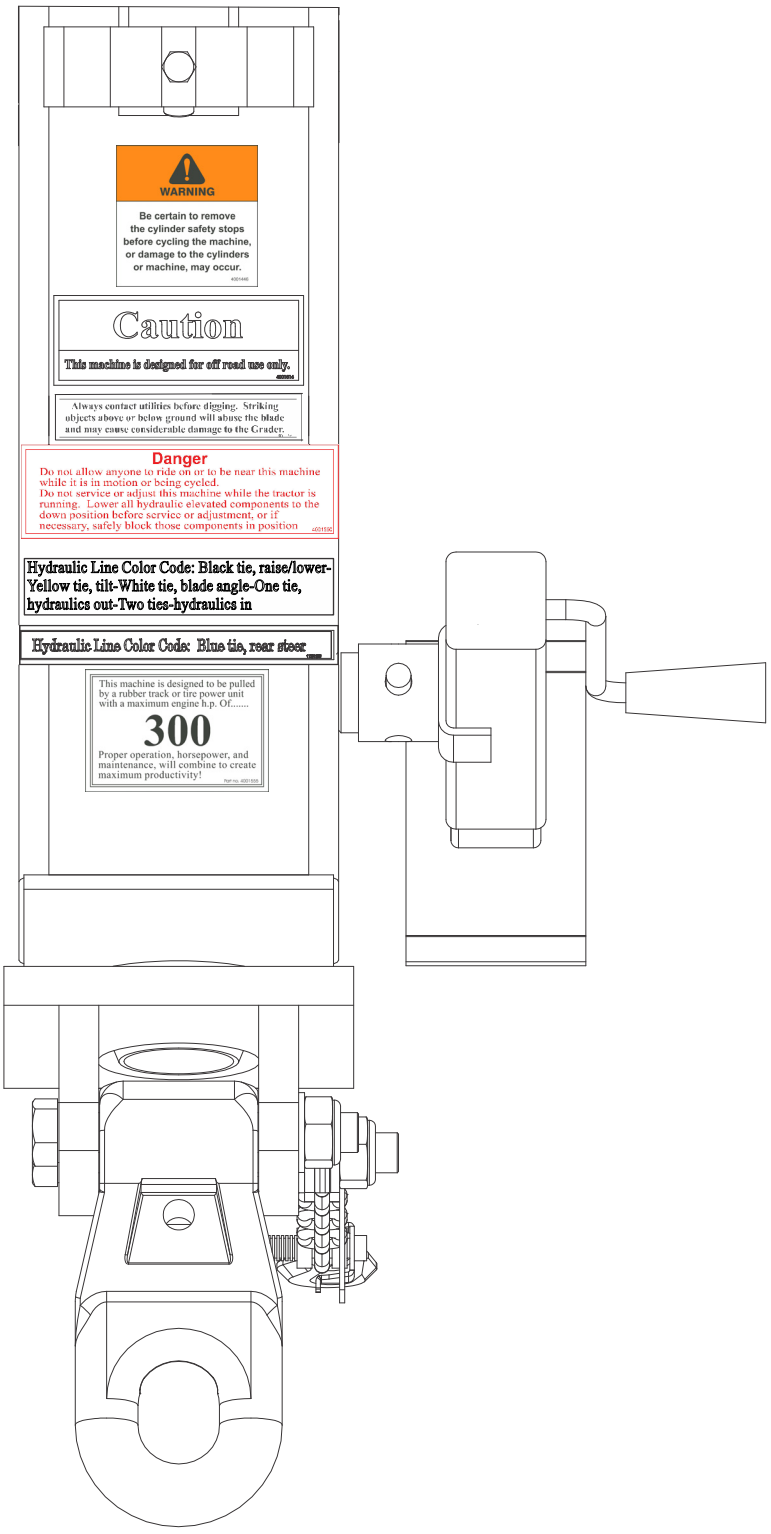
DETAIL A


Caution
This machine is designed for off road use only.
WARNING
STAY CLEAR OF MOVING PARTS
WARNING
High pressure fluid hazzard
To prevent serious injury or death:
Carefully relieve pressure on system before adjusting, repair, or disconnect
Wear proper hand and eye protection when servicing.
Repair or replace all bad components.
DANGER
To prevent serious injury or death from pinching or crushing:
Keep all persons and objects clear of this machine while any part is in motion.
Do not crawl in or under this machine while the tractor is running. Place the safety stops on the hydraulic cylinders before servicing.

1632RS DECALS 2

DETAIL B

Figure 3-4: Safety Decal Locations (2 of 3)


WARNING
Be certain to remove the cylinder safety stops before cycling the machine, or damage to the cylinders or machine, may occur.
Caution
This machine is designed for off road use only.
Always contact utilities before digging. Striking objects above or below ground will abuse the blade and may cause considerable damage to the Grader.
Danger
Do not allow anyone to ride on or to be near this machine while it is in motion or being cycled.
Do not service or adjust this machine while the tractor is running. Lower all hydraulic elevated components to the down position before service or adjustment, or if necessary, safely block those components in position
Hydraulic Line Color Code: Black tie, raise/lower-Yellow tie, tilt-White tie, blade angle-One tie, hydraulics out-Two ties-hydraulics in
Hydraulic Line Color Code: Blue tie, rear steer
This machine is designed to be pulled by a rubber track or tire power unit with a maximum engine h.p. Of.....
300
Proper operation, horsepower, and maintenance, will combine to create maximum productivity!

DETAIL C

1632RS safety decals 3

Figure 3-5: Safety Decal Locations (3 of 3)

Safety Decals

See Figures 3-3 through 3-5 for decal locations.

NOTE

Replace all missing or damaged safety signs/decals.

Pinching or Crushing Danger

1. Moving parts that are operated by hydraulic pressure can cause serious injury or death.
2. Use extreme caution when working around any moving part.
3. Do not allow any person to be on or near the machine while it is in motion.

Moving Parts

1. Be aware of all moving parts of the machine.
2. Do not allow anyone to be near, or on the machine while operating any moving part.

Danger

1. Read and understand the operator's manual before using the machine.
2. Allow no person to operate the machine before reading the manual and being instructed on proper operation.

Caution

1. This machine is designed for off road use only.

Danger, High Pressure

1. High pressure fluid can cause serious damage to hands and eyes.
2. Carefully relieve pressure before attempting any
3. adjustments.
4. Tighten all fittings before applying pressure.

NOTE

If fluid is sprayed into eyes or injected into skin, ***see a doctor immediately!***

Horsepower Limits

1. Each machine is rated for it's horsepower limits.
2. If the posted limits are exceeded, damage to the machine may occur, and the Warranty will void.

NOTE

300 maximum engine h.p. is only applicable if the grader is equipped with the 2nd cylinder.

Lubrication

1. Lubrication information is placed near each zerk.
2. Proper maintenance should be followed to assure the working life of the machine.

Proper Notification

1. Contact the proper authorities before you dig.
2. When digging in a populated area, it is recommended that a call be made to area utilities to establish the local of any buried pipes, lines, or structures. When digging in open areas, research and know the local of any underground structures and objects.
3. Striking the blades or bits against buried objects can cause damage to the machine, and is considered as abuse to the scraper.

Storage Recommendations

NOTE

If the machine is being stored or not in use for a long period of time, it is recommended that a coating of heavy grease be applied to the exposed chrome cylinder rods. This will help to protect the coating from moisture and rust during this time.

⚠ CAUTION

Be certain to remove the cylinder stops before using the grader. The stops are to be pinned in the holder, located on the rear frame.

Failure to remove the stops will result in damage to the stop or cylinder.

Chapter 4

Assembly and Lubrication

Assembly and Lubrication Check List

1. Install and pin pivot frame to tongue frame.
2. Pin rear frame to center pivot frame
3. Attach grader hitch and assure proper movement.
4. Install pivot pins, and insert all retaining clips.
5. Install lift/tilt pivot cylinders. Install all cylinder pins and retaining clips.
6. Install box ends and components. Fold and check to assure they function properly.
7. Install axle and wheel components. Visually inspect tires.
8. Route hydraulic lines and tighten.
9. Install safety lighting components, route wiring, and install plug retainer. Cycle and check lighting system with 12 volt system tester.
10. Lubricate all moving components with high temp grease.
11. Fill hydraulic systems with Mobil 424 hydraulic oil using hydraulic pump, activate all moving parts and bleed air from the system. Hold 3000 psi. hydraulic pressure against all cylinders, fittings, and hoses.
12. Check hydraulic components for leaks.
13. Recheck that all retainers are installed.
14. Assure the rear steer components function properly.
15. Clean and touch up paint the machine.
16. Attach operators manual and container.
17. Apply the safety, operations, and lube identification decals. Attach plastic envelope with warranty info, and this check list, at the front of the hose holder.
18. For ease of transporting, assure that the blade is level, and in the transport position before leaving shop.

Lubrication Maintenance

1. **Table 4-1** specifies the number and the period of lubrication points on the 1632RS Grader. Proper maintenance of your machine will, under normal operating conditions, help to keep it operating at or near its peak performance for an extended period of time. Proper maintenance is also a condition of keeping your warranty in good status **(See Figure 4-1.)**
2. When lubricating the 1632RS, SAE multi-purpose EP grease, or EP grease with 3-5% molybdenum sulfide is recommended. Wipe soil from fittings before greasing. Replace any lost or broken fittings immediately.
3. Regular lubrication will extend service life, particularly in severe operating conditions.

Storage

1. The service life of the 1632RS Grader will be extended by proper off-season storage practices. Prior to storing the unit, complete the following procedures:
   a. Completely clean the unit.
   b. Inspect the machine for worn or defective parts. Replace as needed.
   c. Repaint all areas where the original paint is worn off.
   d. Grease all exposed metal surfaces of shanks, points and discs.
   e. Apply a light coating of oil or grease to exposed cylinder rods to prevent them from rusting.
   f. Lubricate each point of the machine as stated in **“Lubrication Maintenance” on page 4-1.**
2. Store the unit in a shed or under a tarpaulin to protect it from the weather. The ground tools and tires should rest on boards, or some other object, to keep them out of the soil.

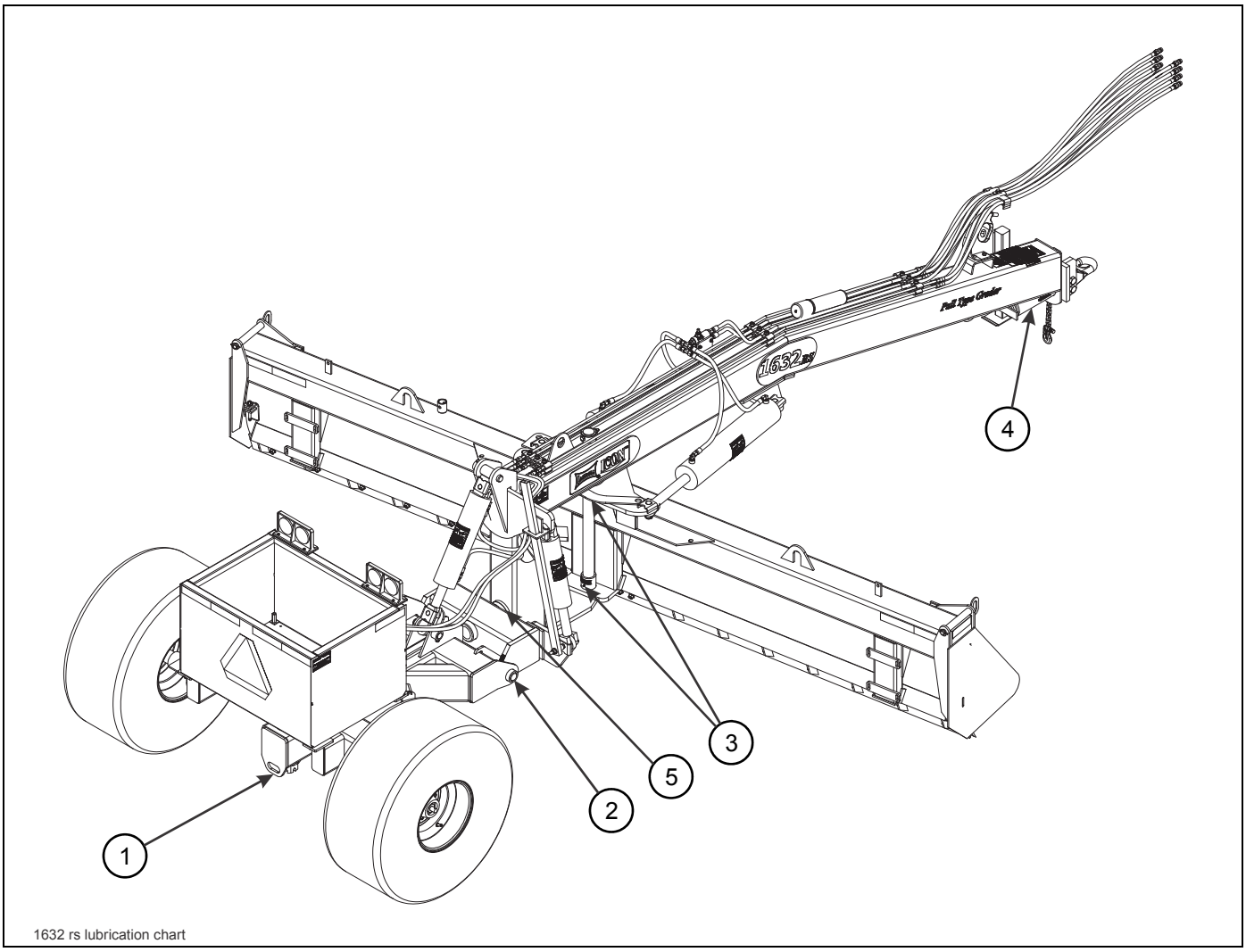


Figure 4-1: Lubrication Schedule

LUBRICATION TABLE			
ITEM	**DESCRIPTION**	**NO. OF LUBE POINTS**	**INTERVAL**
1	REAR AXLE PIVOT	1	DAILY
2	REAR AXLE SUPPORT PIN	2	DAILY
3	CENTER BLADE PIN	2	DAILY
4	HITCH PIVOT	2	DAILY
5	CENTER PIVOT	1	DAILY

Table 4-1: Lubrication Table

Notes

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Chapter 5

Hookup and Operation

The 1432/1632/1632 RS Grader utilizes four hydraulic valves on the tractor, allowing it to function in four different directions.

The Grader has the ability to:

- raise to a clearance from bit to ground of 30 inches while lowering to a negative cut.
- tilt from side to side approximately 15 degrees to accomplish slope cuts and ditching.
- swing of the blade approximately 50 degrees, left or right,
- control of the rear steer, 5' in either direction. All of these functions can be done on the go, or while the grader is stopped.

Tie Strap Designations

Color coded tie straps and markers are attached at the tip end of the hoses to identify the four pairs of hydraulic lines to the grader.

- Black tie is used on the hoses that raise and lower of the blade.
- White tie is used on hoses that swing of the blade.
- Yellow tie is used on hoses that tilt of the blade.
- Blue tie is used on hoses that shift the rear.

NOTE

The decal is located on the tongue of the machine ***(See Figure 5-1.)***

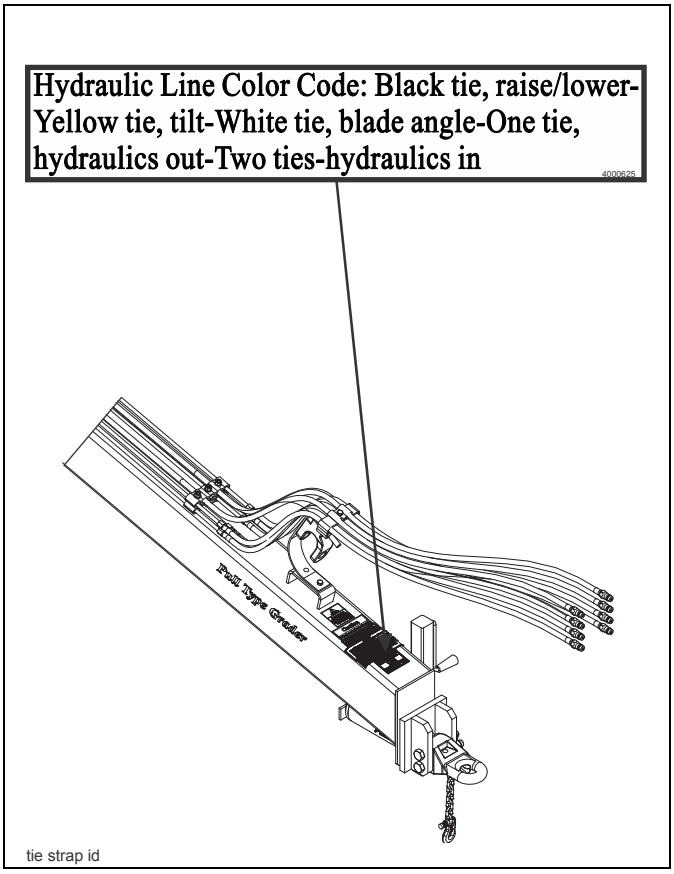

Hydraulic Line Color Code: Black tie, raise/lower-
Yellow tie, tilt-White tie, blade angle-One tie,
hydraulics out-Two ties-hydraulics in
4000625
Tilt Type Grader
tie strap id

Figure 5-1: Tie Strap Designations

Hookup to the Remote

Hookup of the hydraulic hoses to the remote can be done in any way to suit individual needs. The following method is suggested: Raise/Lower of the blade to #1 valve. Swing of the blade to #2, and tilt to #3, and #4 to control side shift.

Hook up so push of the valve is lower and pull of the valve is to raise the blade.

WARNING

Before angling the blade, make sure the grader is taken out of transport position. And be certain that the cylinder stops are removed before use.

CAUTION

When digging in a populated area, it is recommended that a call be made to area utilities to establish the local of any buried pipes, lines, or structures. When digging in open area, research and know the local of any underground structures and objects.

Striking the blade and bit against surface or buried objects can cause damage to the grader and is considered as abuse to the machine.

NOTICE

Operator abuse will not be a warranty item.

Learning to Operate the Grader

Be patient for the first few hours of learning to operate the grader. Time and experience will produce expert results. Any type of blade machine has the tendency to create a “washboard” effect if grading is done with too much speed. Slow down and do the job right. The second tendency of any blade machine is to side draft if the blade is cutting deep and enough power is applied. Practice centering the cut on the blade to balance the draft. Operating the Grader at a higher speed may not get the job done quicker, and may provide less than quality results. It is also recommended that the weight box be filled prior to use. This will also aid in preventing side draft, and bounce.

The grader is designed to be pulled with a maximum of 300hp. Additional horsepower will shorten the life of the grader and will alter the Warranty. Responsible operation and proper maintenance will provide many hours of expert results and a durable machine.

CAUTION

This machine is not intended for highway use, it should be used off road only.

If public roadway travel is necessary, be certain of regulations concerning width, lighting, and safety chain requirements.

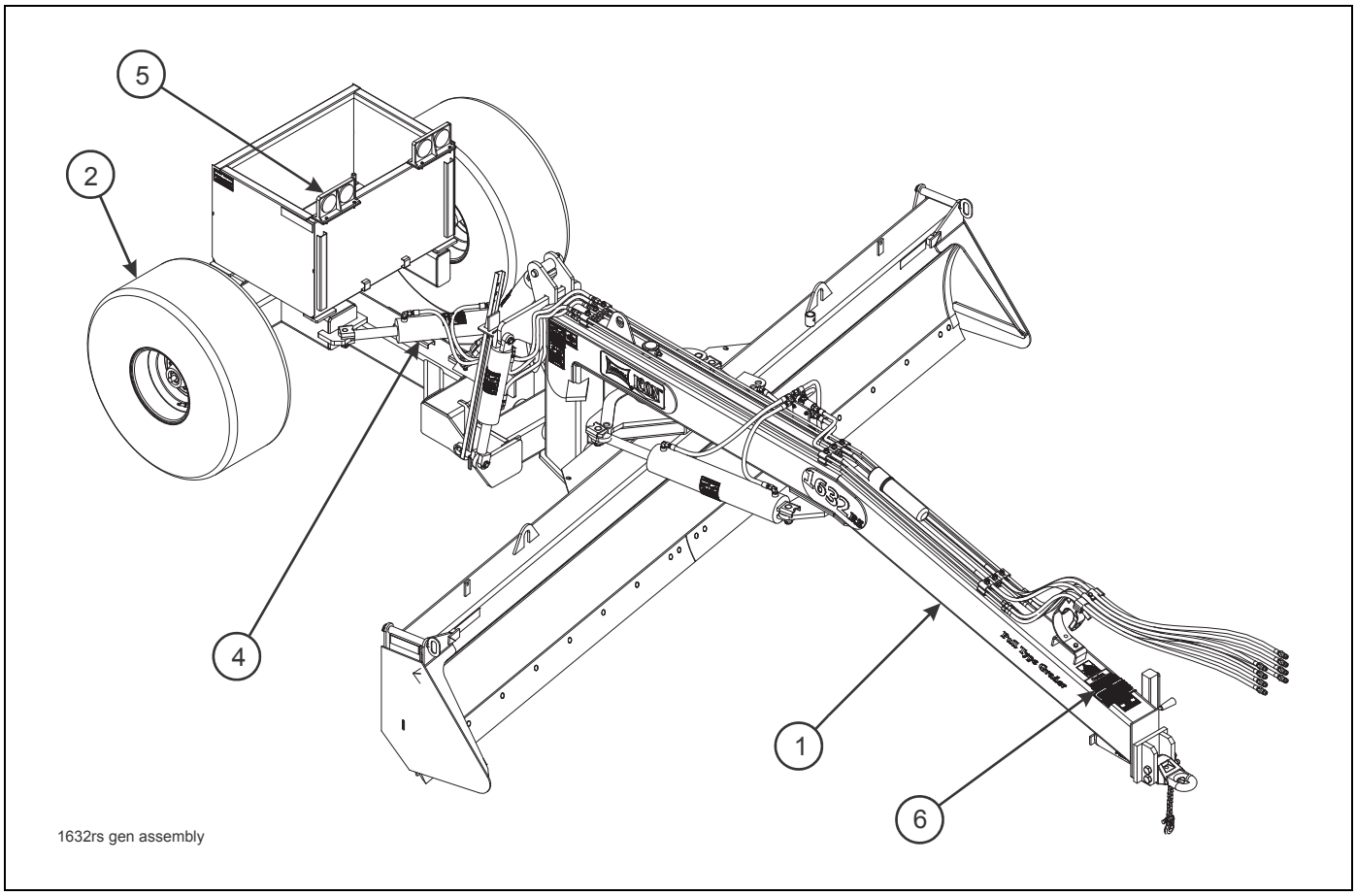


Figure 6-1: General Assembly

General Assembly

ITEM	PAGE NO.	DESCRIPTION	QTY.
1	6-2 - 6-6	GRADER ASSEMBLY	
2	6-11 - 6-12	HUB AND AXLE ASSEMBLY	
3	6-13 - 6-14	SIDEWIND JACK ASSEMBLY (NOT SHOWN)	
4	6-15 - 6-24	HYDRAULIC ASSEMBLIES	
5	6-25 - 6-25	LIGHT KIT	
6	6-26 - 6-30	DECAL KIT	
7	6-31 - 6-32	GAUGE WHEEL KIT (OPTION) (NOT SHOWN)	
8	6-33 - 6-34	GRADER SNOW/DIRT KIT (OPTION) (NOT SHOWN)	

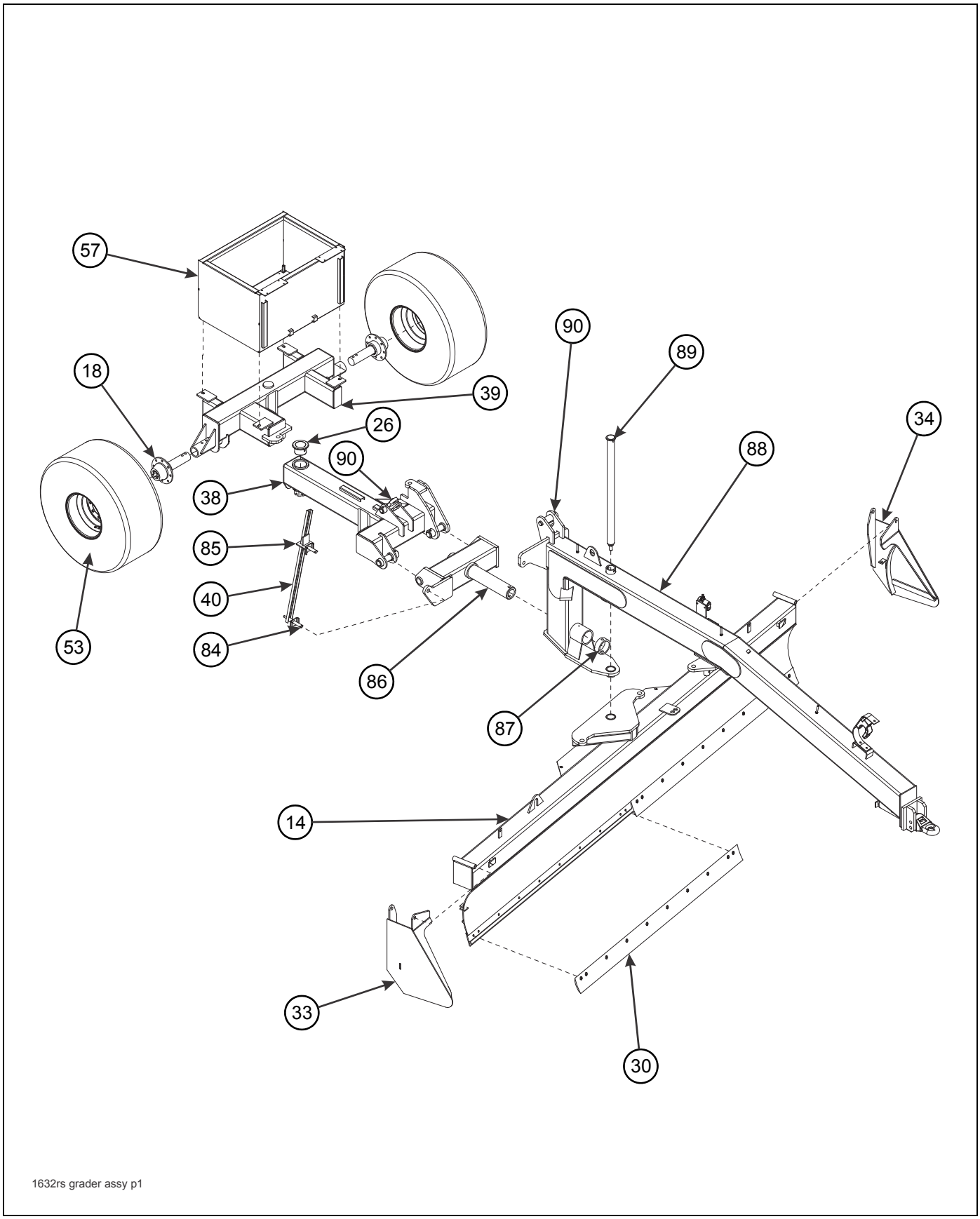


Figure 6-2: Grader Assembly (1 of 6)

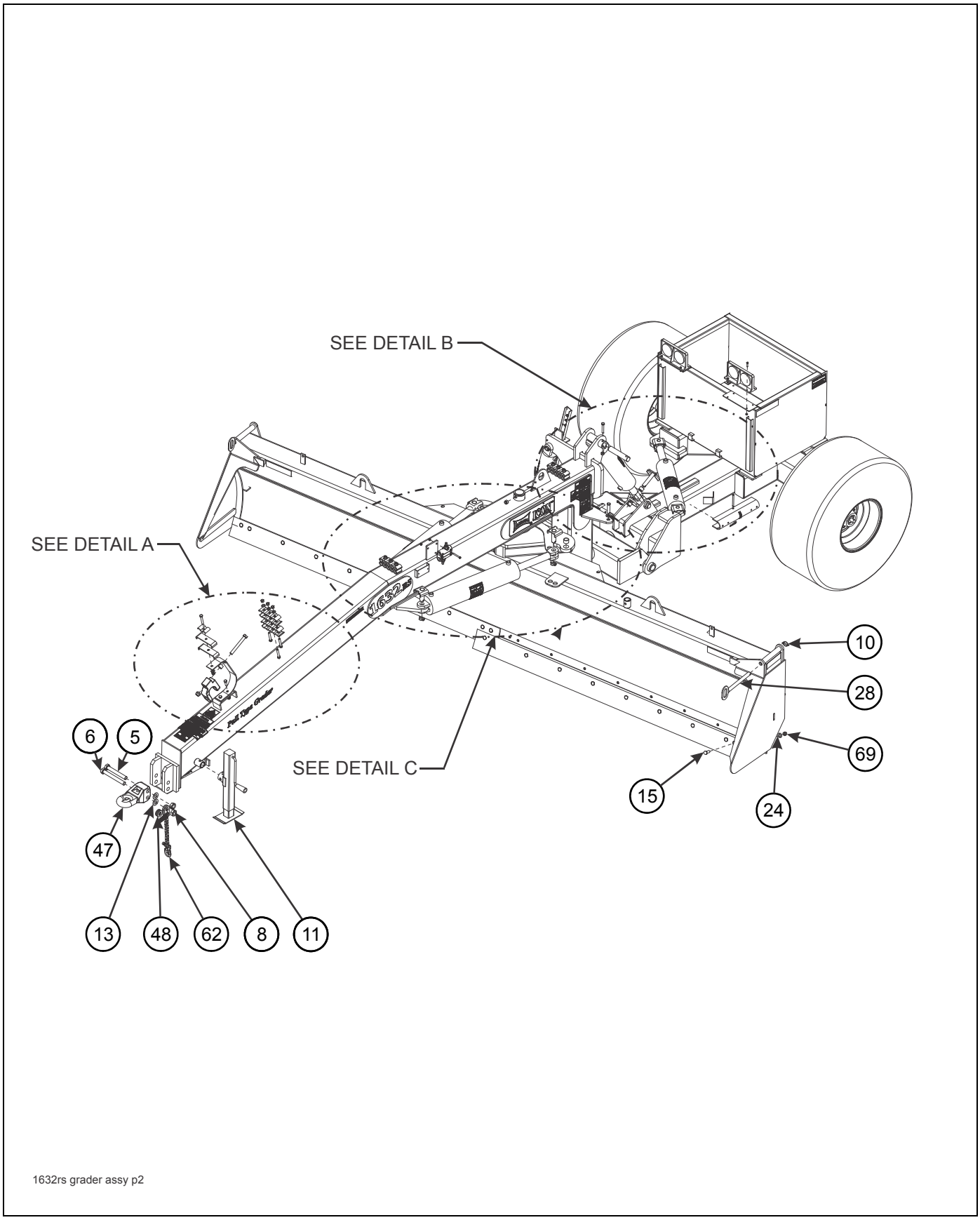


Figure 6-3: Grader Assembly (2 of 6)

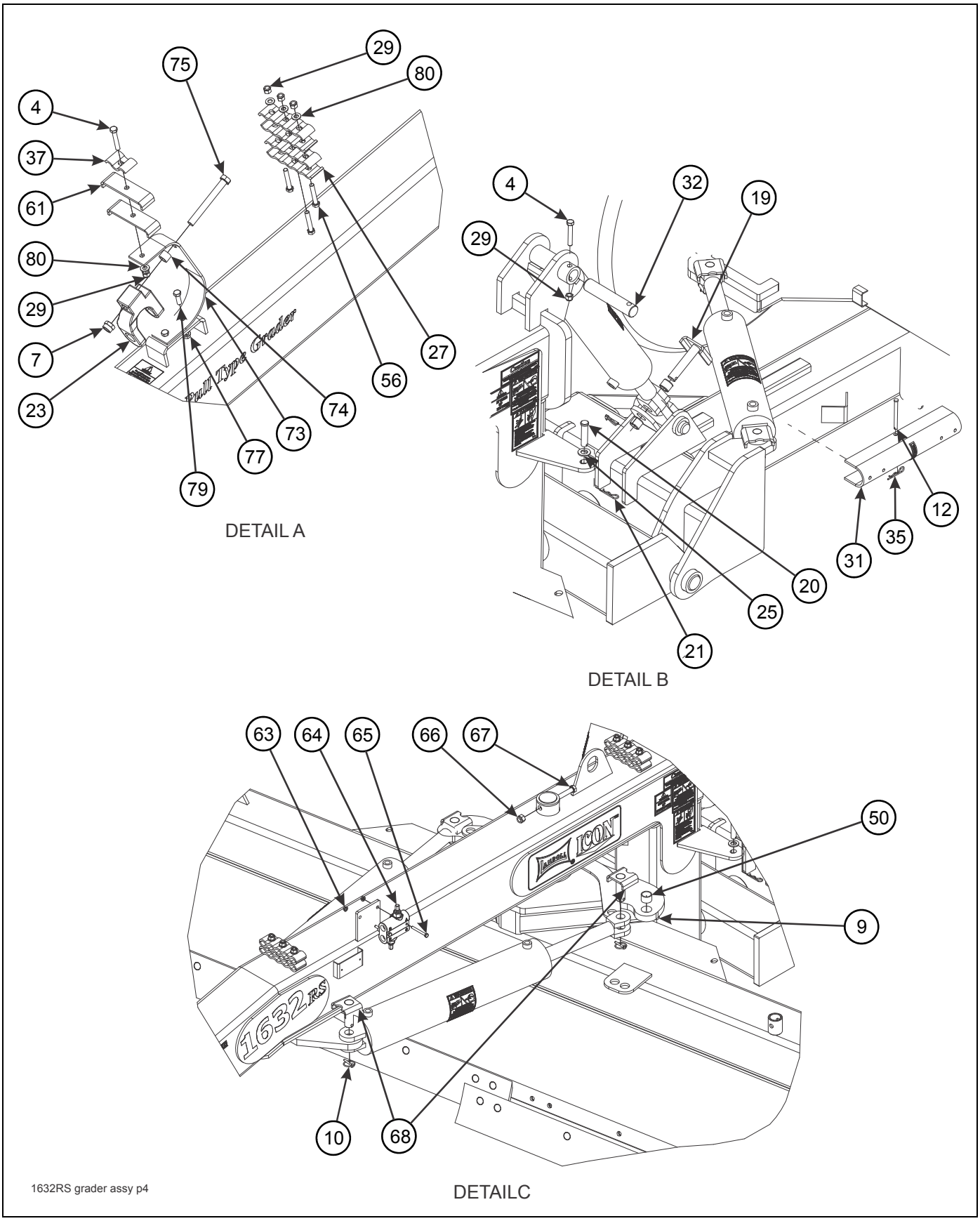


Figure 6-4: Grader Assembly (3 of 6)

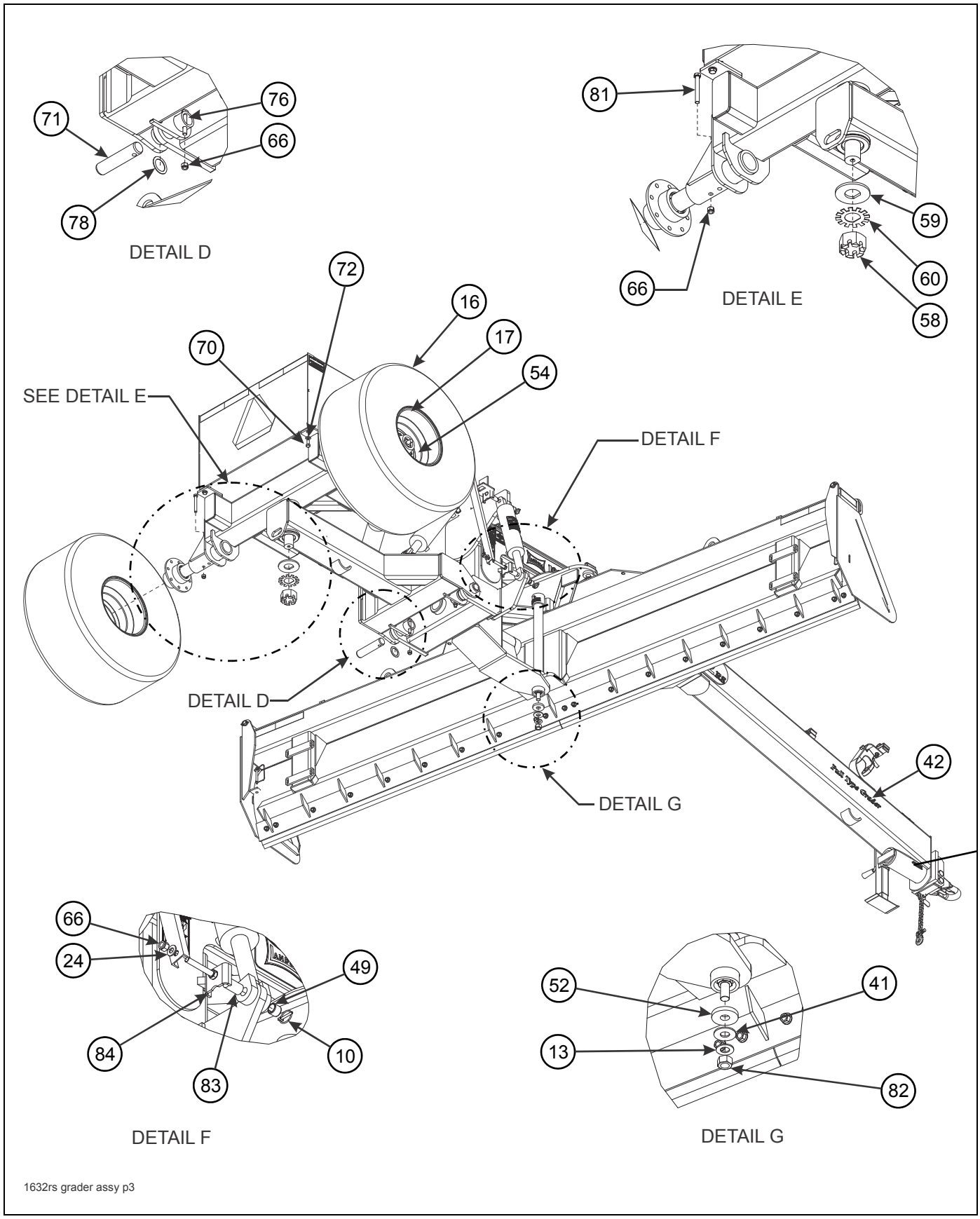


Figure 6-5: Grader Assembly (4 of 6)

Grader Assembly

ITEM	PART NO.	DESCRIPTION	QTY.
1	1-512-010010-11	NUT, HEX 5/8-11 GR8	2
2	155971	PIN, SPRING CLIP	25
3	1-654-010047-07	SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR5	8
4	1-654-010055-09	SCREW, HEX HEAD CAP 1/2-13 X 3 GR5	2
5	1-654-010125-20	SCREW, HEX HEAD CAP 1-8 X 7-1/2 GR8	1
6	1-654-010125-22	SCREW, HEX HEAD CAP 1-8 X 8-1/2 GR8	1
7	110-0238	NUT, ESNA 3/4-10	1
8	118652	NUT, HEX LOCK 1-8	2
9	ICO2189	TRANSPORT STRAP	1
10	134912	PIN, LYNCH 1/4 X 1-1/4	12
11	140647	JACK, SIDEWIND 7,000# (SEE PAGE 6-14)	1
12	1408090	CLEVIS PIN .375 X 4	1
13	622-3511-010	WASHER, FLAT, 1MIL-CARB SAE	3
14	ICO2182	1632 MOW BOARD	1
	ICO2205	1432 MOW BOARD	1
15	172791	BOLT, PLOW 5/8-11 X 2 GR8	20
16	4001244	TIRE, 19 X 16.1	2
17	4001245	RIM, 16 X 16.1	2
18	ICO0361	HUB AND AXLE ASSEMBLY (SEE PAGE 6-12)	2
19	ICO0477	CYLINDER PIN, 1” (LIFT)	2
20	4001442	PIN, SAFETY 3/4 X 3 GR8	1
21	4001443	PIN, BRIDGE 5/32 X 3	1
22	ICO0026	REAR SIDE PIPE CLAMP	1
23	4001503	HITCH TONGUE CAST U CLEVIS	1
24	622-3511-007	WASHER, FLAT MIL-CARB 5/8	20
25	622-3511-008	WASHER, FLAT MIL-CARB 3/4	1
26	4001271	BUSHING, 4OD-3.5ID SM. FLANGE	2
27	ICO0223	SIDE PIPE CLAMP	12
28	ICO1096	PIN, BOX END	2
29	W915665-4	NUT, NYLOCK 1/2-13 GR5	6
30	4000127	CUTTING EDGE, 8’ GRADER BLADE	2
	4000126	CUTTING EDGE, 7’ GRADER BLADE (RIGHT)	2
		CUTTING EDGE, 7’ GRADER BLADE (LEFT)	
31	ICO1080	STOP, CYLINDER 16”	1
32	ICO1078	PIVOT PIN, CYLINDER	2
33	ICO2153	BOX END RIGHT	1
34	ICO2154	BOX END LEFT	1
35	1-557-010403	1/8” HAIRPIN	1
36	4000419	MANUAL HOLDER	1
37	ICO0226	REAR SIDE CLAMP	1
38	ICO2324	REAR STEER WELDMENT	1
39	ICO2325	REAR STEER AXLE WELDMENT	1
40	ICO1079	1632 DEPTH GAUGE	1
41	1-861-010032-25	WASHER, FLAT 1”	1
42	2000602	DECAL KIT (SEE PAGE 6-30)	1
43	2000616	BOLT KIT (INCLUDES ITEMS 62-77)	1
44	5001147	HYDRAULIC HOSE KIT (SEE PAGE 6-18)	1
45	5001148	HYDRAULIC FITTINGS KIT (SEE PAGE 6-18)	1
46	2000620	LIGHT KIT (SEE PAGE 6-25)	1

Grader Assembly

ITEM	PART NO.	DESCRIPTION	QTY.
47	4001501	HITCH, RING CAT III	1
48	861-10032-24	WASHER, FLAT ZP/CD 1N	3
49	2-150-010008	BUSHING, 1-1/4 OD X 1 ID X 1 STEEL	8
50	4000096	BUSHING	4
51	ICO2189	TRANSPORT STRAP	1
52	SCR2160	WASHER LOAD SHARING PIN	
53	173240	TIRE AND WHEEL ASSEMBLY (INCL. ITEMS 16-17, 54)	1
54	TR571	VALVE STEM	2
55	179183	GRADER SNOW/DIRT SKID ASSEMBLY (SEE PAGE 6-34)	1
56	1-654-010055-05	BOLT, HEX 1/2 X 2 GR5	6
57	ICO2187	1632 WEIGHT BOX	1
58	172892	NUT, HEX SLOT 2-1/2-4	1
59	ICO2254	10YD WEAR WASHER	1
60	ICO2255	10YD HITCH RETAINER	1
61	ICO0544	CLAMP, HYD LINE	2
62	141434	SAFETY CHAIN, 21000 LB	
63	126561	NUT, FLANGE SERRATED, 5/16-18	11
64	500855	HYDRAULIC VALVE	
65	1-654-010049-12	SCREW, HEX HEAD CAP 5/16-18 X 2-3/4 GR5	2
66	103-0625	NUT, ENSA 5/8-11	6
67	122962	SCREW, HEX HEAD CAP 5/8-11 X 4-1/2 GR8	1
68	GRA1599	PIN, CYLINDER 1-1/4	
69	63D10ER	NUT, HEX 5/8-11	20
70	172827	SCREW, HEX HEAD CAP 5/8-11 X 1-1/2 GR8	4
71	ICO0372	REAR AXLE SUPPORT PIN	
72	622-3511-007	WASHER, FLAT MIL-CARB 5/8	1
73	ICO0004	HOSE STAND	1
74	ICO1117	PIN, SPACER 3/4”	
75	120876	SCREW, HEX HEAD CAP 3/4-10 X 6-1/2 GR8	1
76	172829	SCREW, HEX HEAD CAP 5/8-11 X 4 GR8	2
77	1-510-010003-09	NUT, FLANGE HEAD SERRATED 1/2-13	2
78	172926	WASHER, MACHINE 2”	4
79	1-654-010055-03	SCREW, HEX HEAD CAP 1/2-13 X 1-1/2 GR5	2
80	622-3511-005	WASHER, FLAT MIL-CARB 1/2	6
81	172830	SCREW, HEX HEAD CAP 5/8-11 X 5 GR8	2
82	172839	NUT, HEX 1-8 GR8	1
83	ICO1082	AGI6C DEPTH GAUGE SPACER	
84	ICO1077	UG16 CYLINDER PIN, W/DEPTH GAUGE MOUNT	1
85	ICO1076	UG16 CYLINDER PIN, W/DEPTH GAUGE SLIDE	1
86	ICO1051	UG16 CENTER PIVOT FRAME	1
87	ICO1069	AG16C PIVOT KEEPER	1
88	ICO2183	1632 GRADER TONGUE	1
89	GRA2044	UG16 PIN CENTER BLADE	1
90	ICO1075	CYLINDER PIVOT	2
91	5000	ZERK FITTING, 1/8	8

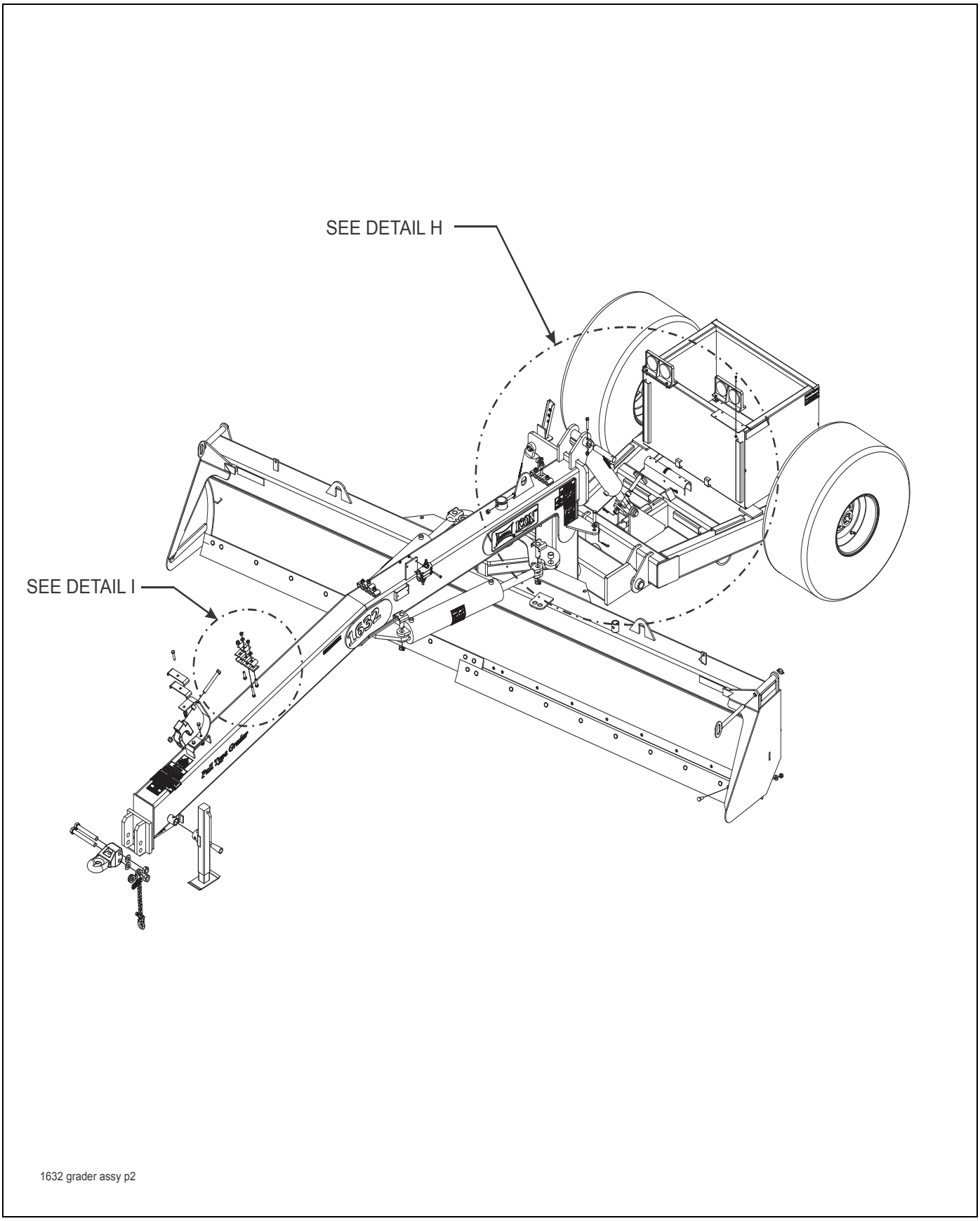
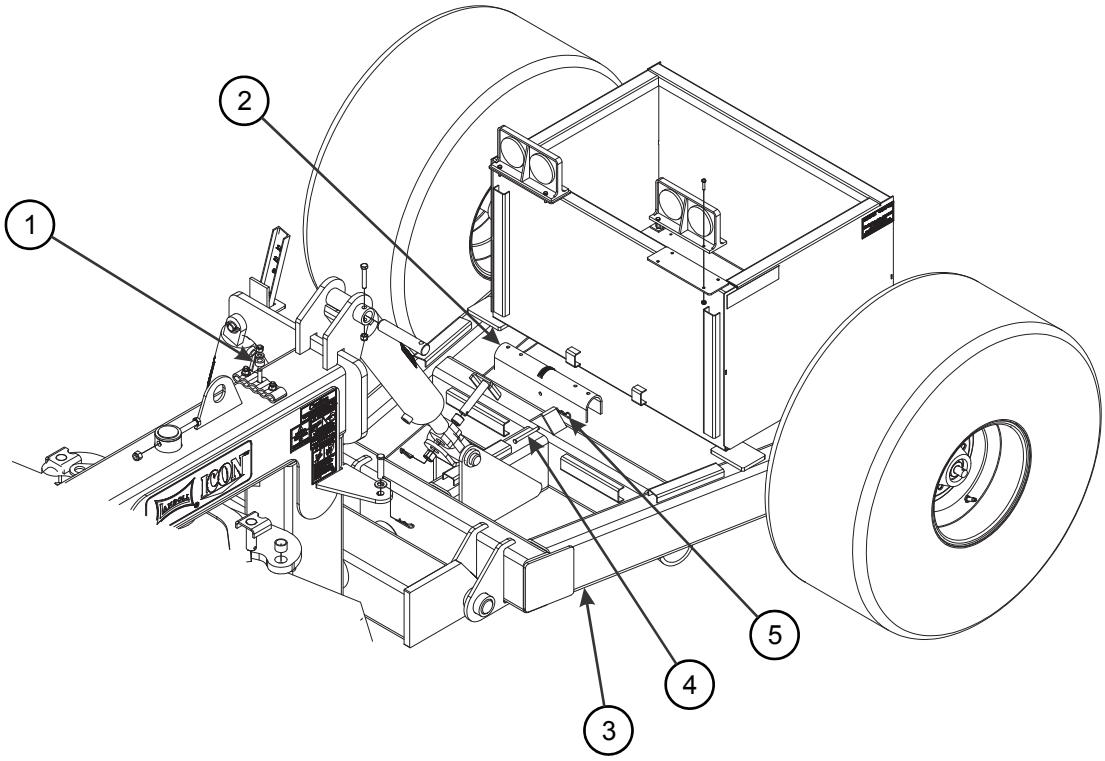
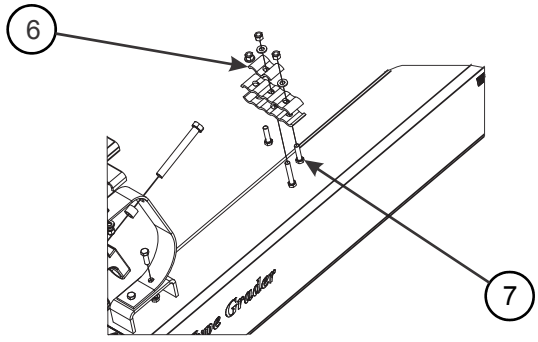


Figure 6-6: Grader Assembly



DETAIL H



DETAIL I

1632STD 3

Figure 6-7: Grader Assembly

Grader Assembly Standard Models

Item	Part No.	Description	
93	ICO0090	PIN, SPACER 9/16”	1
31	ICO1080	STOP, CYLINDER 16”	1
92	ICO2186	REAR AXLE SUPPORT	1
12	1408090	CLEVIS PIN .375 X 4	1
35	1-557-010403	1/8” HAIRPIN	1
22	ICO0026	REAR SIDE PIPE CLAMP	1
56	1-654-010055-05	BOLT, HEX 1/2 X 2 GR5	2

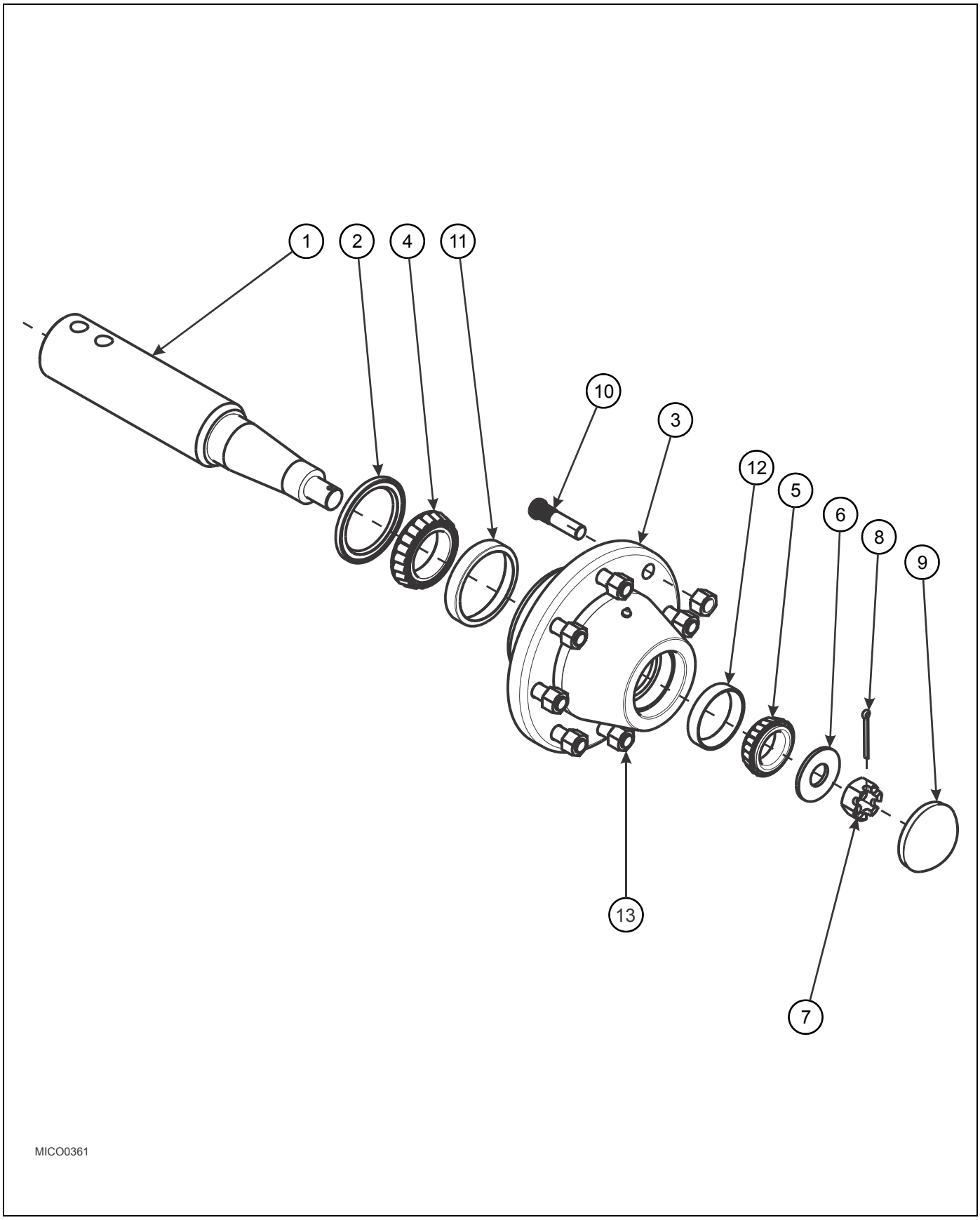


Figure 6-8: Hub and Axle Assembly

Hub And Axle Assembly

ITEM	PART NO.	DESCRIPTION	QTY.
	ICO0361	HUB AND AXLE ASSEMBLY	2
1	ICO0360	HD16 AXLE 8,500 #	1
2	4001062	HUB SEAL	1
3	4001057	HUB, 7500# 8 BOLT 75-8	1
4	4001061	INNER BEARING	1
5	4000582	OUTER BEARING	1
6	1-861-010032-25	WASHER, FLAT 1”	1
7	1-516-010001-20	NUT, HEX SLOT 1-14	1
8	110-4224	PIN, COTTER 3/16 X 2	1
9	4000585	DUST CAP	1
10	4001060	WHEEL STUD BOLT 5/8-18	8
11	4001059	INNER RACE	1
12	4000580	OUTER RACE	1
13	4001517	WHEEL NUT	8

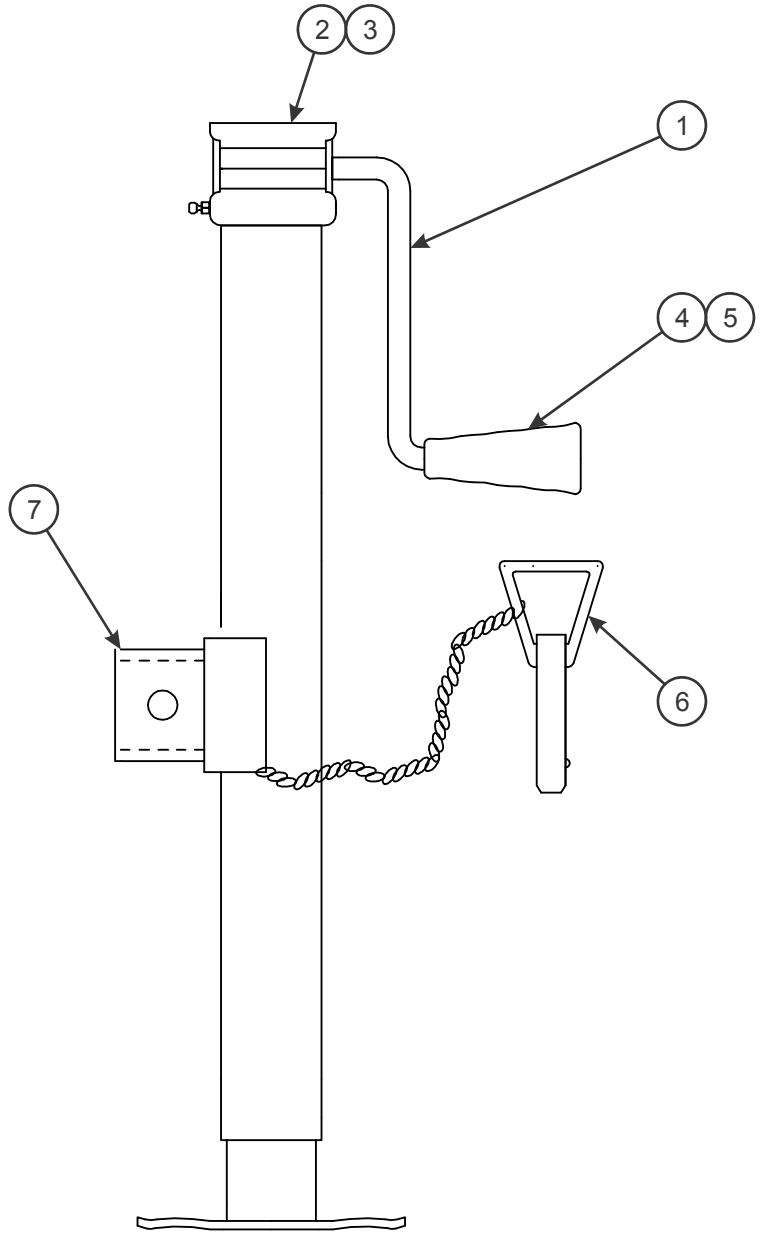


Figure 6-9: 7,000 Lb. Sidewind Jack Assembly

7,000 Lb. Sidewind Jack Assembly

ITEM	PART NO.	DESCRIPTION	QTY.
	140647	JACK, SIDEWIND 7000LB	
1	142189	9" HANDLE KIT	1
2	142190	GEAR KIT	1
3	142191	BEARING KIT	1
4	142192	BLACK HANDLE	1
5	142193	RETAINING CLIP	1
6	142194	5/8” PIN AND CHAIN - L	1
7	142195	5/8” FEMALE WELD-ON MOUNT	1

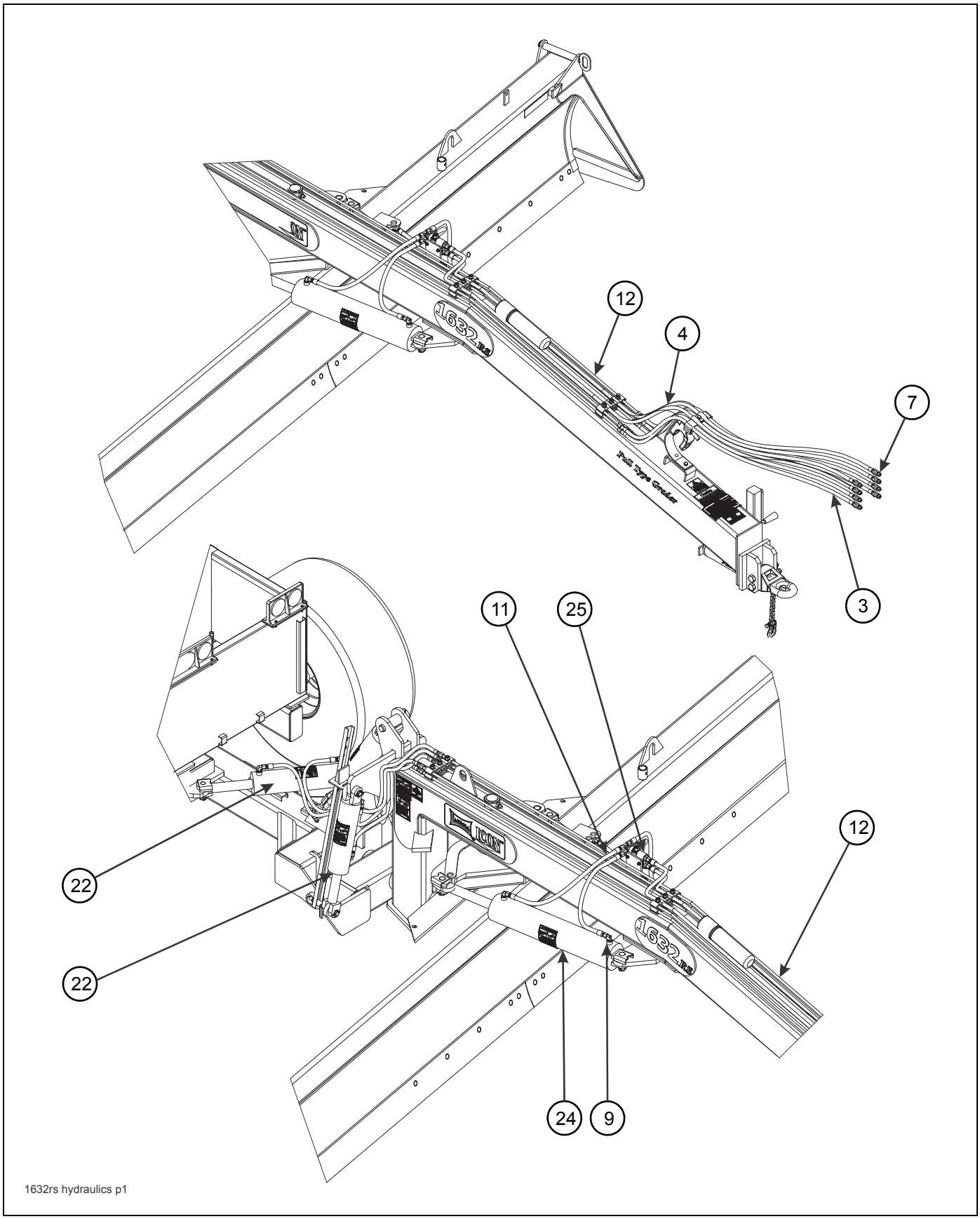


Figure 6-10: Hydraulic Assembly (1 of 3)

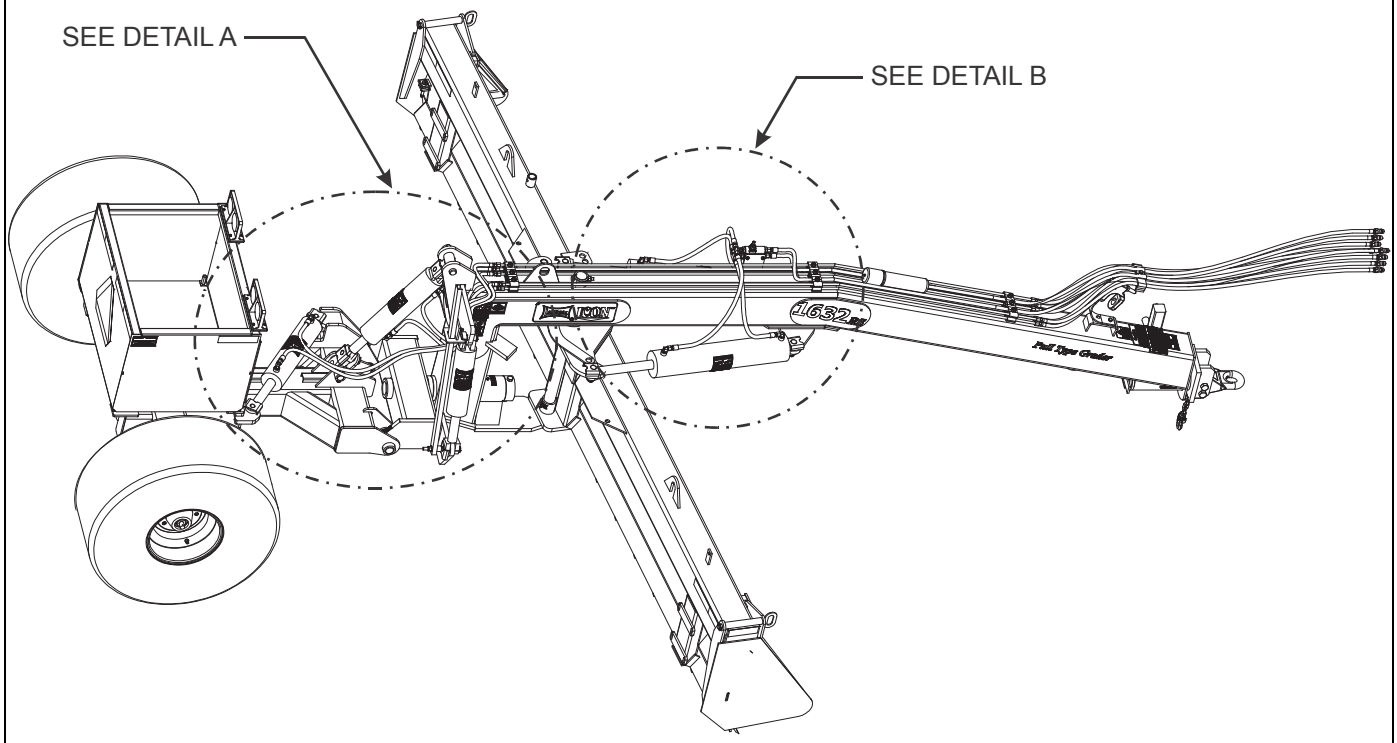
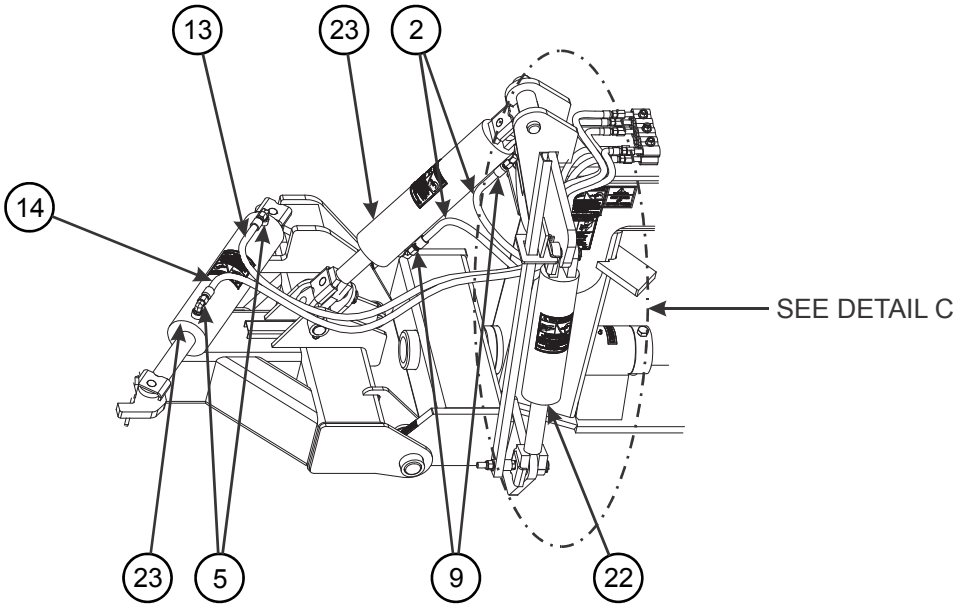
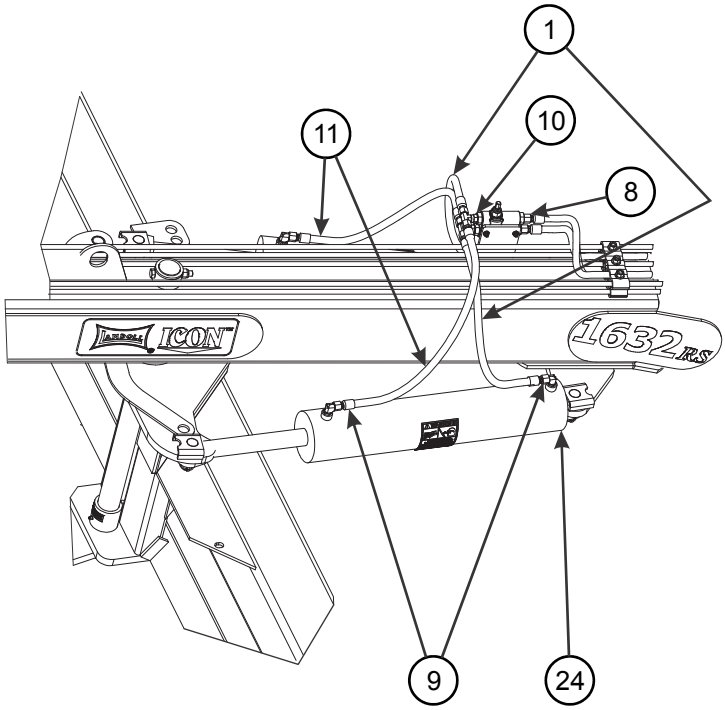


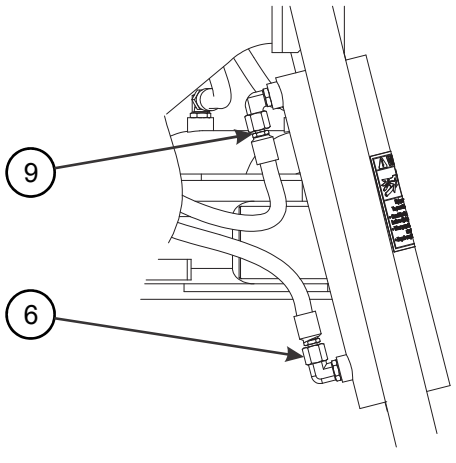
Figure 6-11: Hydraulic Assembly (2 of 3)



DETAIL A



DETAIL B



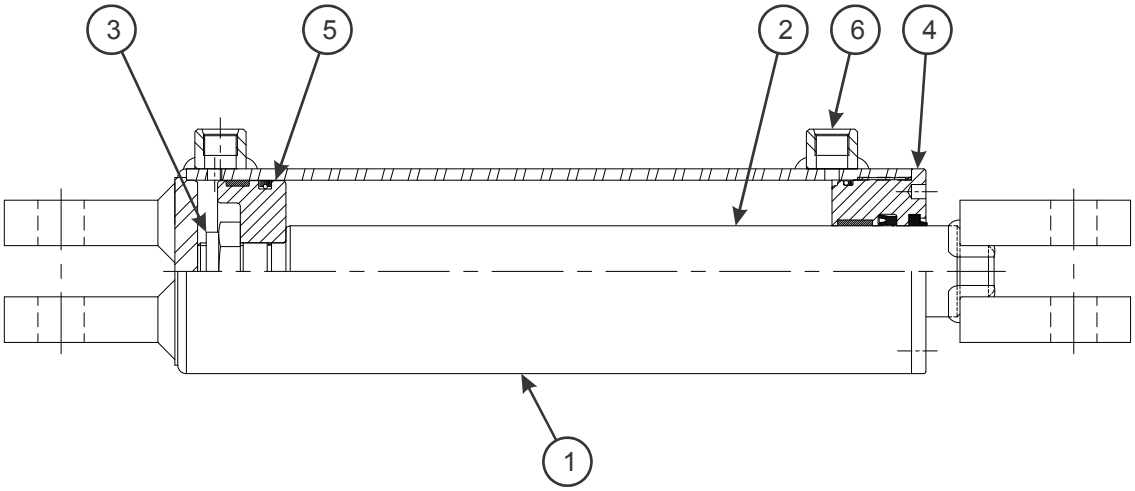
DETAIL C

1632RS hydraulic hoses p3

Figure 6-12: Hydraulic Assembly (3 of 3)

Hydraulic Assembly

ITEM	PART NO.	DESCRIPTION	QTY.
	5001147	HYDRAULIC HOSE KIT	
	5001148	HYDRAULIC FITTING KIT	
1	5000858	HOSE ASSEMBLY 3/8 X 30	2
2	5000889	HOSE ASSEMBLY 3/8 X 42	4
3	5000979	HOSE ASSEMBLY 3/8 X 92	4
4	5001150	HOSE ASSEMBLY 3/8 X 158	2
5	141826	ELBOW 90 W/ 1/16 RESTRICTOR	2
6	141827	ELBOW 90	4
7	141828	COUPLER, MALE 3/4-16	8
8	202702-12-8S	ADAPTER	4
9	2062-8-8S	ADAPTER, 90	7
10	40-0669-01	TEE, SWIVEL NUT BRANCH	2
11	5000859	HOSE ASSEMBLY 3/8 X 30	2
12	5000893	HYDRAULIC TUBE 124”	6
13	179195	HOSE ASSEMBLY, 3/8 X 78 (RS ONLY)	1
14	179196	HOSE ASSEMBLY, 3/8 X 85 (RS ONLY)	1
15	5000486	HOSE WRAP 1” (NOT SHOWN)	AR
16	5000595	HOSE WRAP 1-1/4” (NOT SHOWN)	AR
17	5000934	HOSE WRAP 1/4” (NOT SHOWN)	AR
18	4000722	CABLE TIE, 7-1/4” CLEAR	3
19	4000723	CABLE TIE, 8” BLACK (NOT SHOWN)	12
20	4000724	CABLE TIE, 7-1/2” YELLOW (NOT SHOWN)	3
21	4000725	CABLE TIE, 14” BLACK HD (NOT SHOWN)	10
22	4000857	CYLINDER, HYDRAULIC 4 X 12 - 22-1/4” (TILT) (SEE PAGE 6-20)	REF
23	4000858	CYLINDER, HYDRAULIC 4 X 16 - 26-1/4” (LIFT) (RS) (SEE PAGE 6-22)	REF
24	4000859	CYLINDER, HYDRAULIC 5 X 24 - 36-1/4” (ANGLE) (SEE PAGE 6-24)	REF
25	5000855	HYDRAULIC VALVE, CUSHION DRV1HHEE	REF

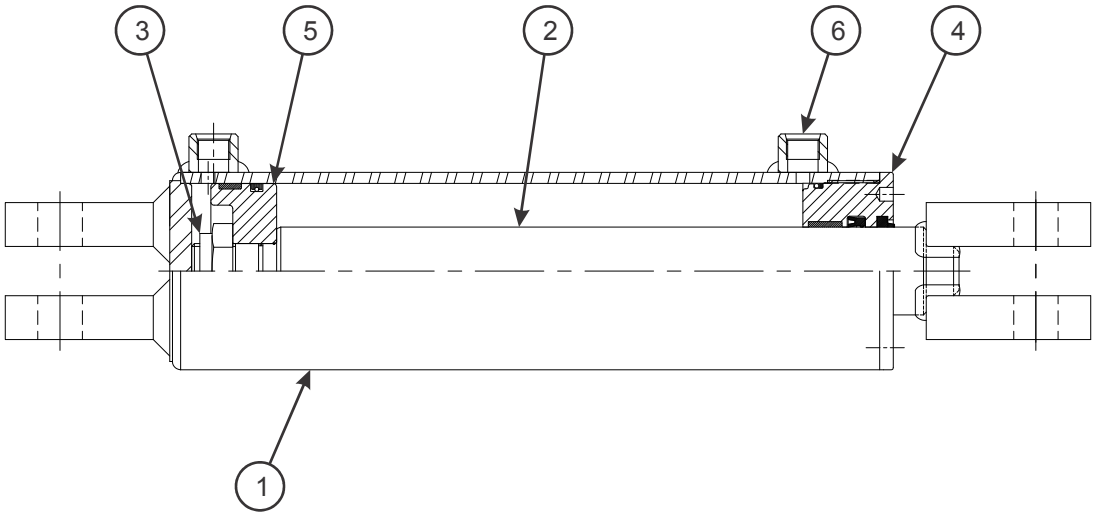


m4000857

Figure 6-13: Hydraulic Cylinder, 4 x 12

Hydraulic Cylinder, 4 X 12

ITEM	PART NO.	DESCRIPTION	QTY.
	4000857	HYDRAULIC CYLINDER, 4 X 12	
1	-----	CASE WELDMENT	1
2	180906	ROD	1
3	-----	NUT, LOCK THINK CLR 1-1/4-12 UNF	1
4	180904	HEAD	1
5	-----	PISTON	1
6	-----	PLUG, PLASTIC #8 SAE SHIPPING	2
	180905	SEAL KIT	1

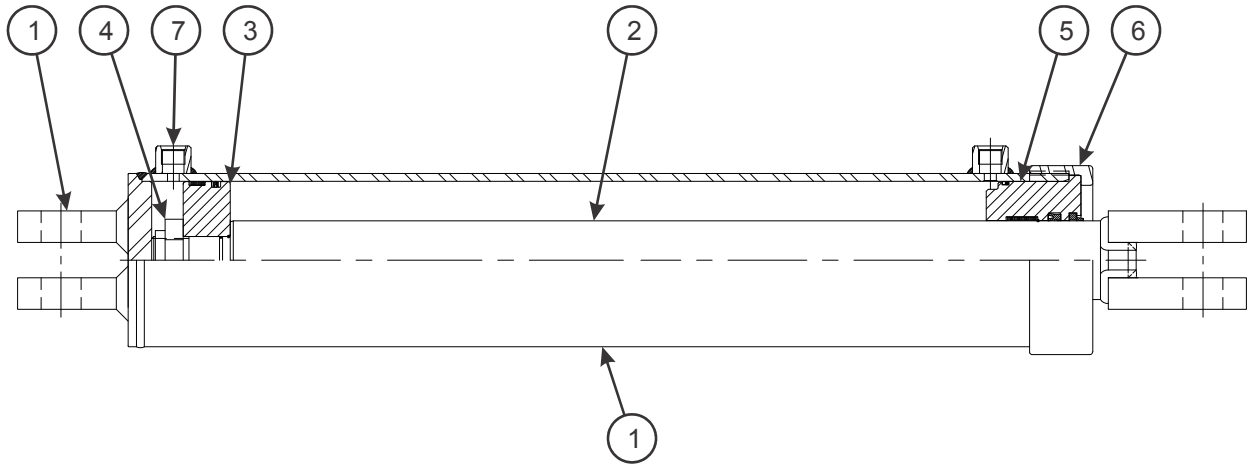


m4000858

Figure 6-14: Hydraulic Cylinder, 4 x 16

Hydraulic Cylinder, 4 X 16

ITEM	PART NO.	DESCRIPTION	QTY.
	4000858	HYDRAULIC CYLINDER, 4 X 16	
1	-----	CASE WELDMENT	1
2	180903	ROD	1
3	-----	NUT, LOCK THINK CLR 1-1/4-12 UNF	1
4	180904	HEAD	1
5	-----	PISTON	1
6	-----	PLUG, PLASTIC #8 SAE SHIPPING	2
	180905	SEAL KIT	1



m4000859

Figure 6-15: Hydraulic Cylinder, 5 x 24

Hydraulic Cylinder, 5 X 24

ITEM	PART NO.	DESCRIPTION	QTY.
	4000859	HYDRAULIC CYLINDER, 5 X 24	
1	-----	CASE WELDMENT	1
2	180901	ROD	1
3	-----	PISTON	1
4	-----	NUT, LOCK THINK CLR 1-1/2-12 UNF	1
5	180902	HEAD	1
6	-----	RING, THREADED	1
7	-----	PLUG, PLASTIC #8 SAE SHIPPING	2
	4000643	SEAL KIT	1

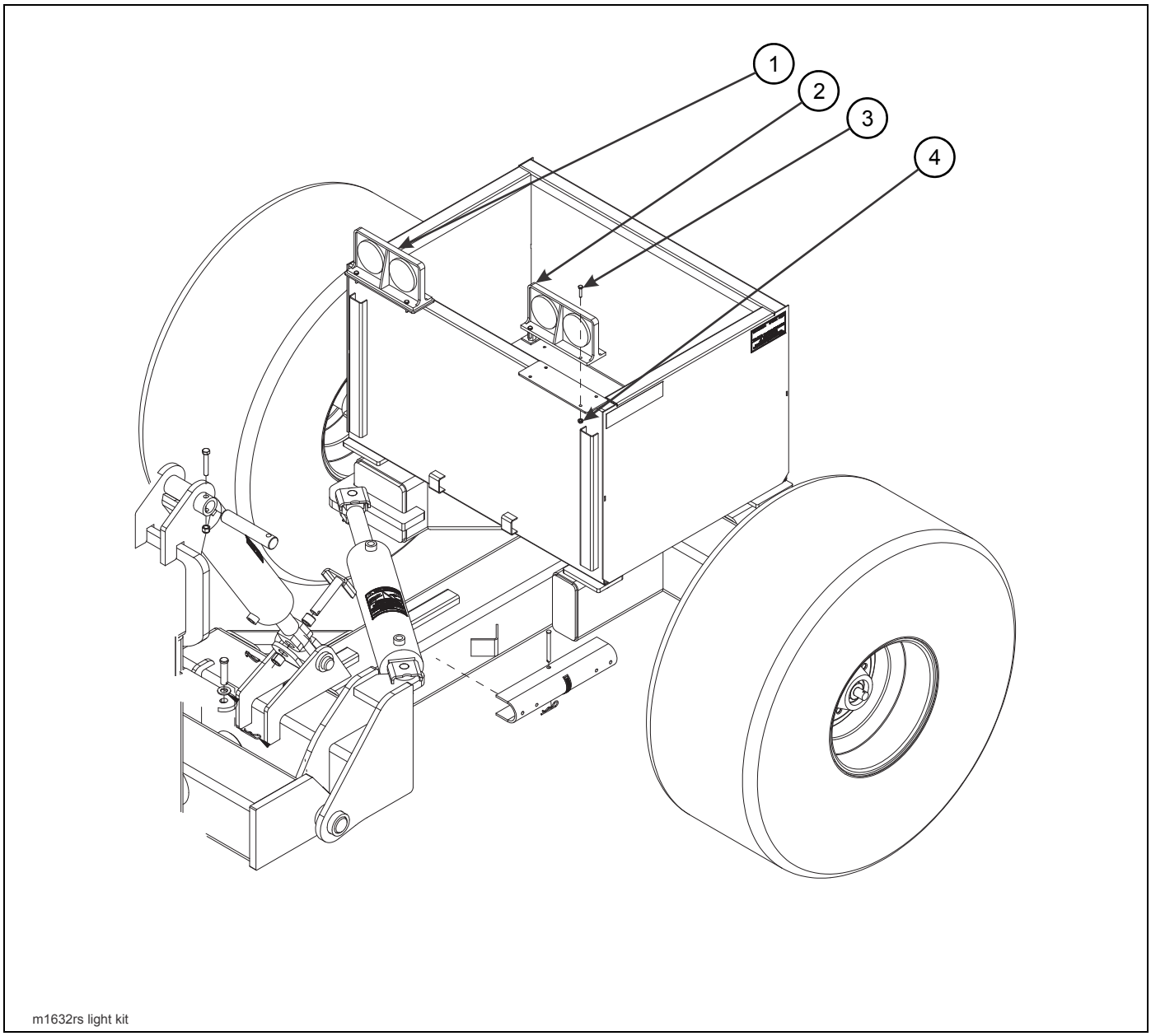


Figure 6-16: Light Kit

Light Kit

ITEM	PART NO.	DESCRIPTION	QTY.
	2000620	LIGHT KIT (OPTION)	
1	4001301	MODULAR LIGHT, RIGHT W/ BRAKE	1
2	4001300	MODULAR LIGHT, LEFT W/ BRAKE	1
3	1-654-010047-07	SCREW, HEX HEAD CAP 1/4-20 X 1-1/4 GR5	8
4	142779	NUT, FLANGE SERRATED 1/4-20	8
5	LT0001	FRONT LIGHT HARNESS (NOT SHOWN)	1
6	LT0056	REAR LIGHT HARNESS (NOT SHOWN)	1

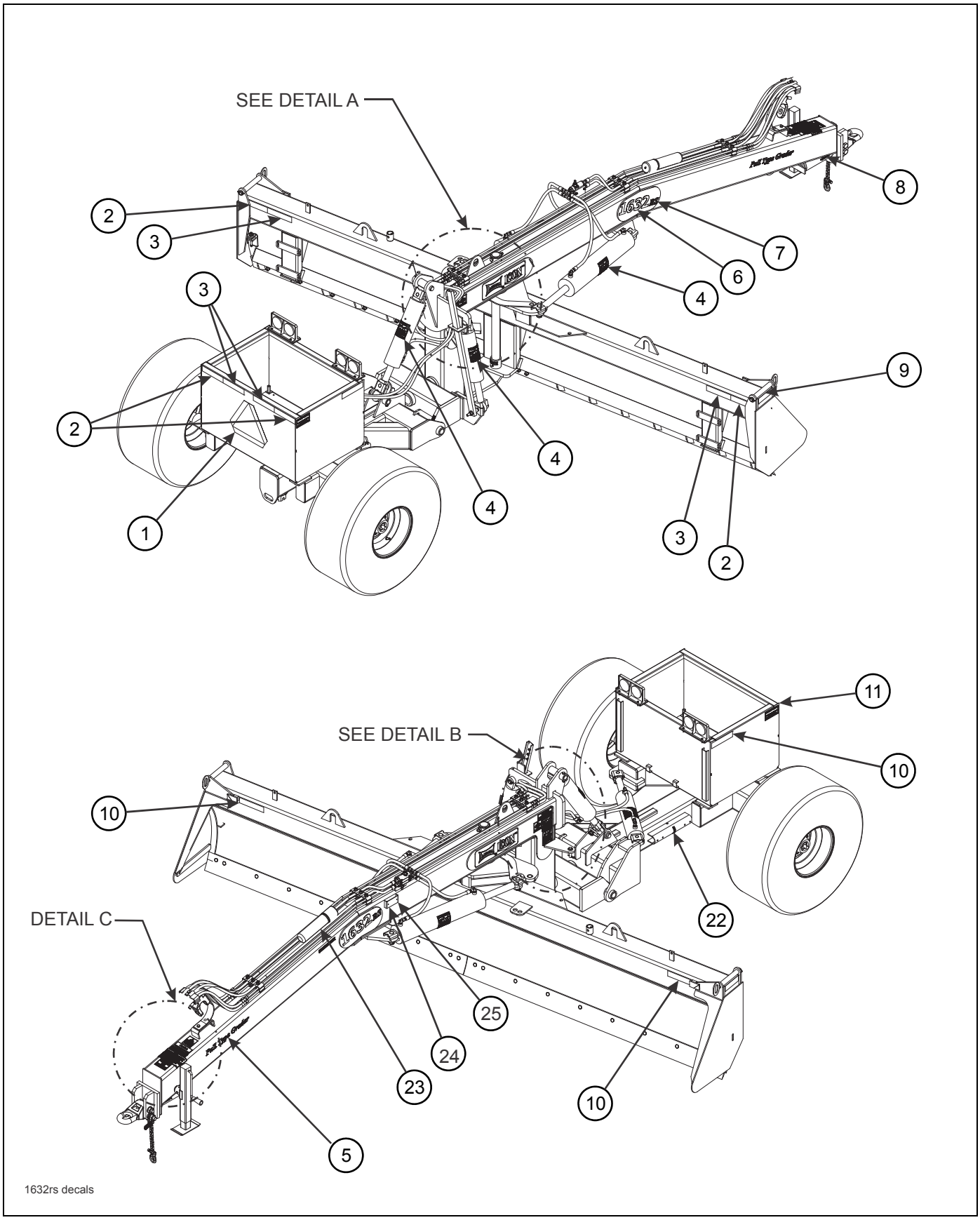
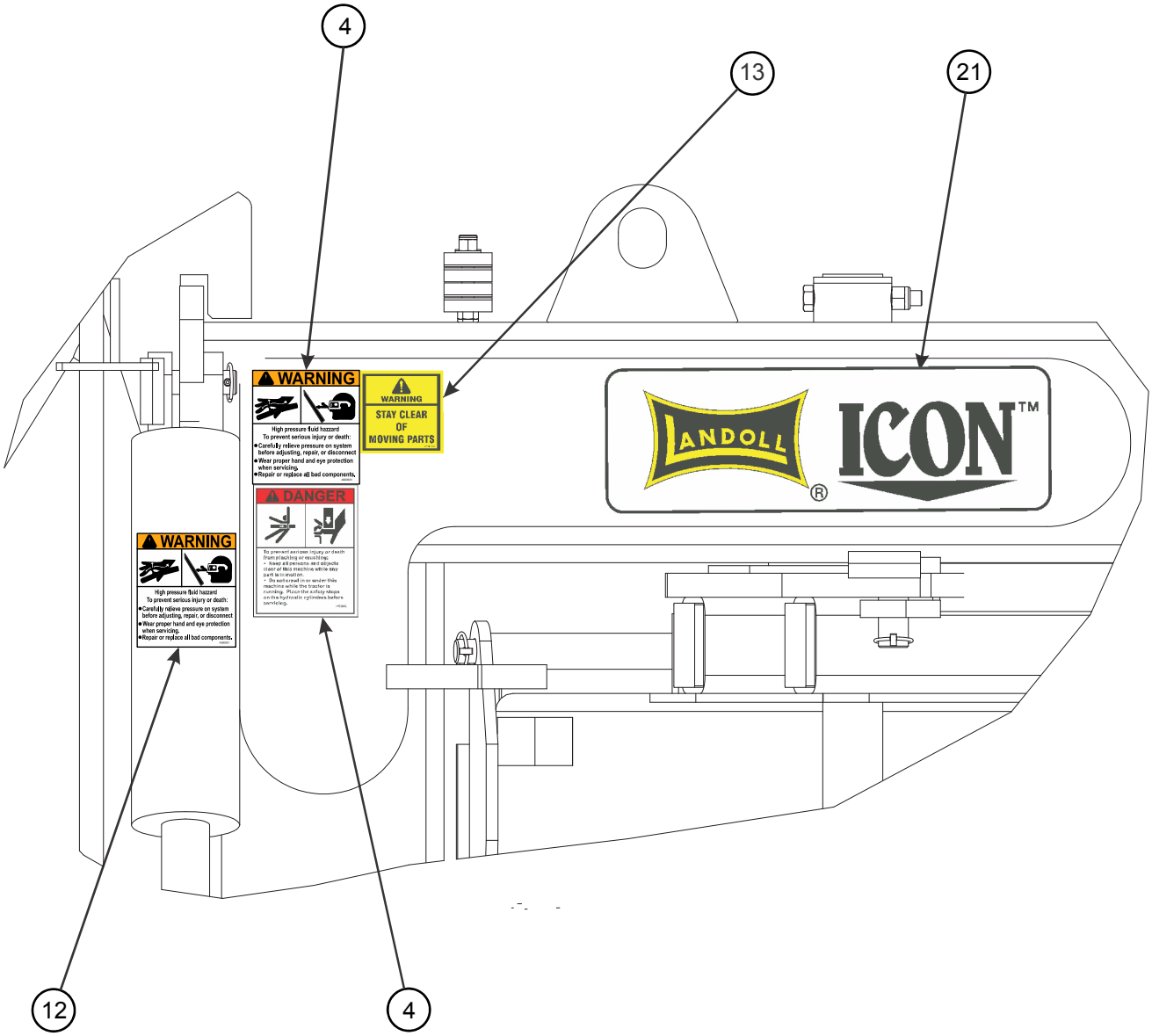


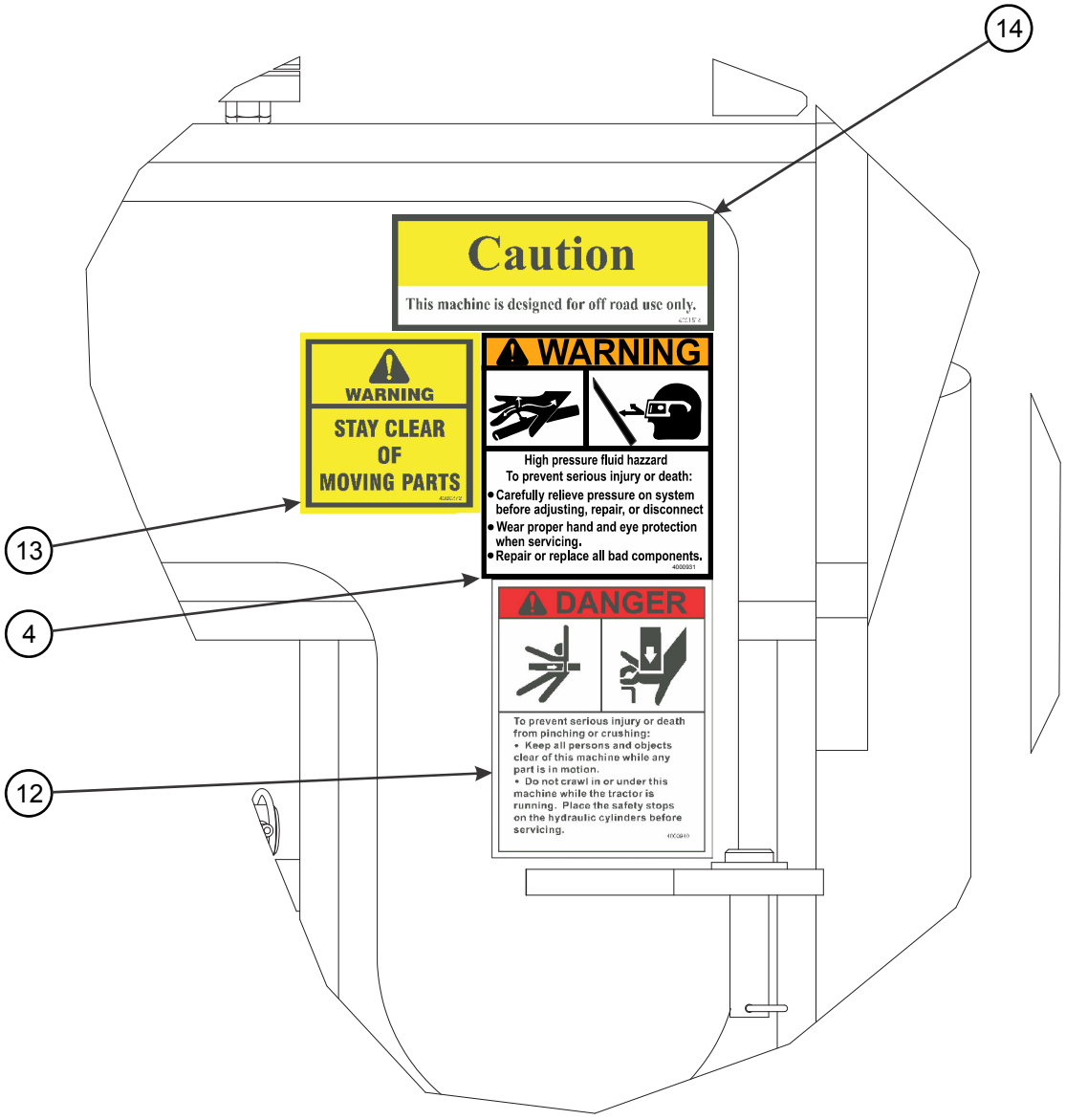
Figure 6-17: Decal Kit (1 of 4)



DETAIL A

1632RS decals 4

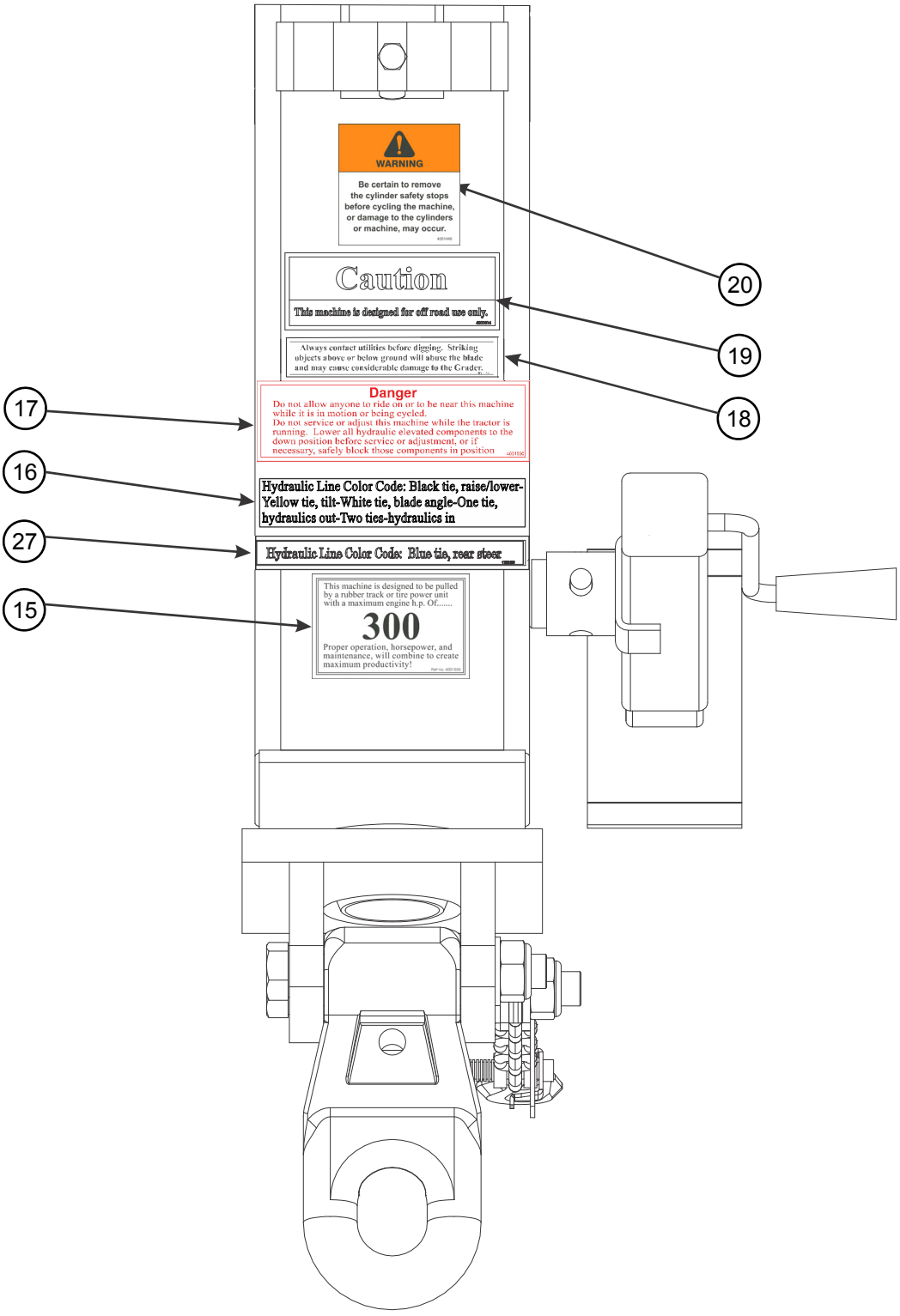
Figure 6-18: Decal Kit (2 of 4)


14
Caution
This machine is designed for off road use only.
WARNING
STAY CLEAR
OF
MOVING PARTS
WARNING
High pressure fluid hazzard
To prevent serious injury or death:
• Carefully relieve pressure on system before adjusting, repair, or disconnect
• Wear proper hand and eye protection when servicing.
• Repair or replace all bad components.
DANGER
To prevent serious injury or death from pinching or crushing:
• Keep all persons and objects clear of this machine while any part is in motion.
• Do not crawl in or under this machine while the tractor is running. Place the safety stops on the hydraulic cylinders before servicing.
13
4
12

DETAIL B

1632rs decals 2

Figure 6-19: Decal Kit (3 of 4


WARNING
Be certain to remove the cylinder safety stops before cycling the machine, or damage to the cylinders or machine, may occur.
Caution
This machine is designed for off road use only.
Always contact utilities before digging. Striking objects above or below ground will abuse the blade and may cause considerable damage to the Grader.
Danger
Do not allow anyone to ride on or to be near this machine while it is in motion or being cycled.
Do not service or adjust this machine while the tractor is running. Lower all hydraulic elevated components to the down position before service or adjustment, or if necessary, safely block those components in position
Hydraulic Line Color Code: Black tie, raise/lower-Yellow tie, tilt-White tie, blade angle-One tie, hydraulics out-Two ties-hydraulics in
Hydraulic Line Color Code: Blue tie, rear steer
This machine is designed to be pulled by a rubber track or tire power unit with a maximum engine h.p. Of.....
300
Proper operation, horsepower, and maintenance, will combine to create maximum productivity!
17
16
27
15
20
19
18

DETAIL C

1632RS decals 3

Figure 6-20: Decal Kit (4 of 4)

Decal Kit

ITEM	PART NO.	DESCRIPTION	QTY.
	2000602	DECAL KIT	
1	4000335	DECAL, SLOW MOVING	1
2	528933	DECAL, RED REFLECT TAPE 2”	6
3	528938	DECAL, ORANGE RELFECT TAPE 2”	6
4	4000931	DECAL, WARNING HIGH PRESSURE	5
5	4001246	DECAL, PULL TYPE GRADER	1
6	4001502	DECAL, 1632 4”	1
	4001526	DECAL, 1432	
7	179197	DECAL, RS 2”	2
8	4000938	DECAL, GREASE DAILY	7
9	4000702	DECAL, REFLECT RED TAPE 7” LONG	2
10	528934	DECAL, YELLOW REFLECT TAPE 2”	6
11	4001558	DECAL, 19 X 16.1 35PSI TIRE PRESSURE	2
12	4000940	DECAL, DANGER PINCHING/CRUSHING	2
13	4000372	DECAL, WARN MOVING PARTS	2
14	4001527	DECAL, CAUTION UNPIN MOWBOARD	4
15	4001555	DECAL, 300 HORSEPOWER RATING	2
16	4000625	DECAL, HYD LINE COLOR CODE	1
17	4001550	DECAL, DANGER NO RIDING	1
18	4001484	DECAL, ALWAYS CONTACT UTILITIES	2
19	4001516	DECAL, OFF ROAD ONLY	2
20	4001446	DECAL, WARNING REMOVE CYL. STOP	1
21	4001522	DECAL, LANDOLL/ICON	1
22	4001445	DECAL, SAFETY STOP	1
23	4000935	DECAL, SAFETY/OPERATIONS/PARTS	1
24	156010	RIVET, BLIND .156 X 1/2 GRIP	2
25	1-573-010006	PLACARD, NAME	1
26	4001426	DECAL, DEPTH GAUGE	1
27	179198	DECAL, HOSE IDENTIFICATION	1

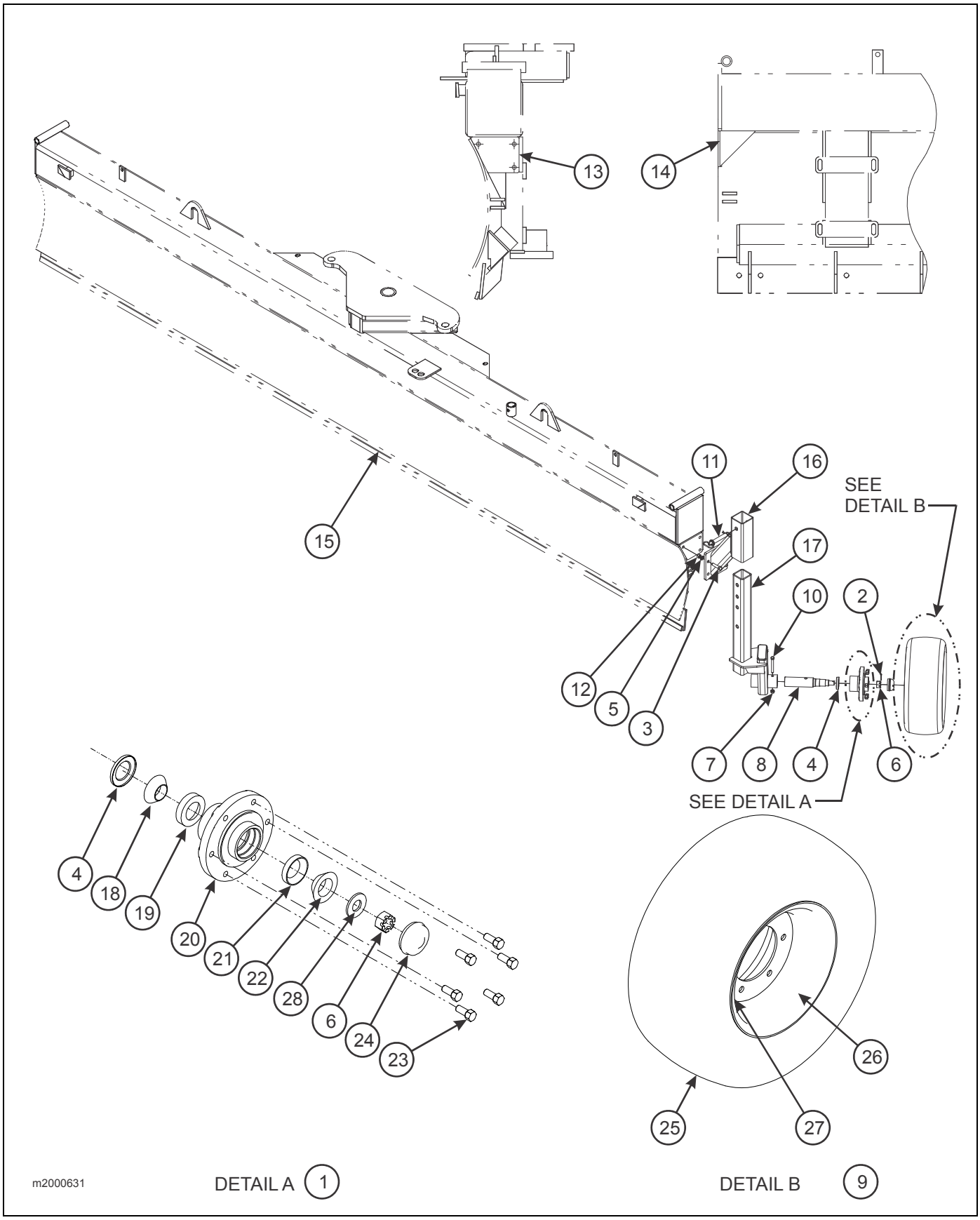
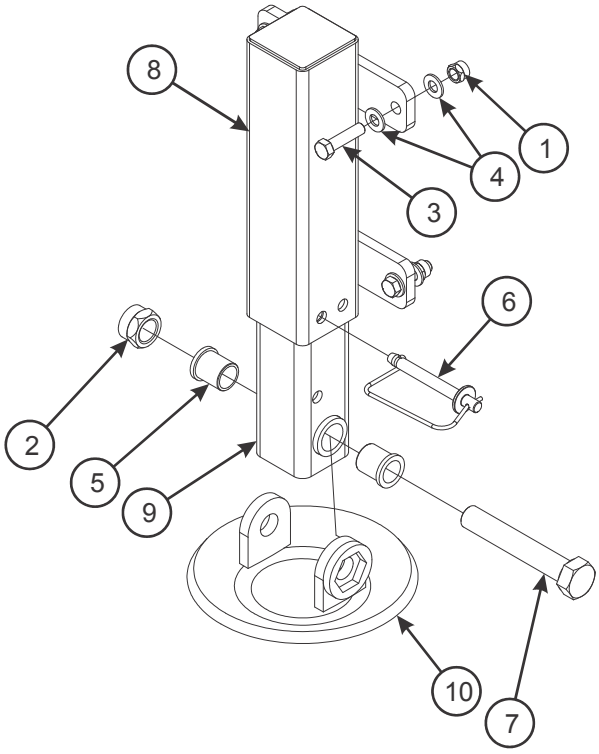


Figure 6-21: Gauge Wheel Kit (Option)

Gauge Wheel Kit (Option)

ITEM	PART NO.	DESCRIPTION	QTY.	
	2000631	GAUGE WHEEL KIT, LEFT (SHOWN) (OPTION)	*	
	2000636	GAUGE WHEEL KIT, RIGHT (OPTION)		*
1	1-406-010010	HUB ASSEMBLY - 6 BOLT (INCL ITEMS 18-24)	1	1
2	1-557-010362-40	PIN, COTTER 5/32 X 1-1/4	1	1
3	1-654-010055-05	SCREW, HEX HEAD CAP 1/2-13 X 2 GR5	3	3
4	1-659-010004	SEAL, GREASE 1-5/8	1	1
5	1-861-010034-13	WASHER, SPLIT LOCK 1/2	3	3
6	100966	NUT, HEX SLOTTED 7/8-14	1	1
7	101988	NUT, HEX LOCK 7/16-14 GRB	1	1
8	141245	SPINDLE, GAUGE WHEEL	1	1
9	141271	TIRE AND WHEEL ASSEMBLY FRONT (INCL ITEMS 25-27)	1	1
10	141808	SCREW, HEX HEAD CAP 7/16-14 X 3-1/2 GR5	1	1
11	4001311	HITCH PIN, 3/4 X 4	1	1
12	61D8ER	NUT, HEX 1/2-12 GR5	3	3
13	9303018	PLATE, 1/2	1	1
14	9303022	PLATE, 1/2	1	1
15	ICO2182	MOWBOARD	REF	REF
16	ICO2225	GAUGE WHEEL SUPPORT	1	1
17	ICO2234	GAUGE WHEEL STAND LH SIDE	1	--
	ICO2226	GAUGE WHEEL STAND RH SIDE	--	1
18	1-076-010009	CONE, INNER BEARING	2	2
19	1-076-010012	CUP, INNER BEARING	2	2
20	1-406-010012	HUB, 6 BOLT W/ CUPS (INCL. ITEMS 19 & 21)	2	2
21	1-076-010010	CUP, OUTER BEARING	2	2
22	1-076-010007	CONE, OUTER BEARING	2	2
23	1-104-010002	BOLT, WHEEL	12	12
24	1-161-010003	CAP, DUST	2	2
25	160151	TIRE, 20.5 X 8 10/8 PLY	1	1
26	160155	WHEEL, 10 X 6 6 BOLT	1	1
27	TR416	VALVE STEM	1	1
28	1-861-010004	WASHER, SPINDLE 7/8	1	1



m179183

Figure 6-22: Grader Snow/Dirt Kit (Option)

Grader Snow/Dirt Kit (Option)

ITEM	PART NO.	DESCRIPTION	QTY.
	179183	GRADER SNOW/DIRT KIT (OPTION)	
1	1-512-010005-09	NUT, HEX LOCK 1/2-13 GRB	4
2	1-512-010005-19	NUT, HEX LOCK 1-8 GRB	1
3	1-654-010055-05	SCREW, HEX HEAD CAP 1/2-13 X 2 GR5	4
4	1-861-010032-14	WASHER, FLAT 1/2N	8
5	144264	BEARING, FLANGE 1”	2
6	155971	PIN, SPRING CLIP	1
7	172580	SCREW, HEX HEAD CAP 1-8 X 6 GR8	1
8	179184	GRADER SNOW/DIRT SKID WELDMENT	1
9	179187	GRADER SNOW/DIRT SKID WELDMENT	1
10	179190	GRADER SNOW/DIRT SKID WELDMENT	1

Chapter 7

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Model 1432/1632/1632RS Grader Service and Parts Manual

Re-Order Part Number F-740-1213

LANDOLL CORPORATION

1900 North Street

Marysville, Kansas 66508

(785) 562-5381

800-428-5655 ~ WWW.LANDOLL.COM

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